

CHANGING WELFARE, LIVING CONDITIONS AND SOCIAL INTEGRATION

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Dissertation for the degree of Ph. D. at the Faculty of Social Science, University of Oslo

FOREWORD

The writing of this dissertation has been a long process. I thank both of my supervisors, Arne and Lise, for not losing faith in me and for their constant encouragements and many helpful suggestions. Likewise, I thank my employer, Statistics Norway, and the leaders of my section, Division for Social and Demographic Research (Kari and now Randi), for their patience and willingness to keep funding the project. I also thank Norges Forskningsråd (The Norwegian Research Council) for their contribution in funding the project.

Further, I would like to thank the members of my “personal community”. Colleagues at Statistics Norway form an important part of this community, quite naturally due to all the time I spend at work! I thank my co-workers in the Division for Social and Demographic Research for creating a remarkably supportive and non-competitive atmosphere. The social capital inherent in the helpfulness and intellectual resources of my closest work colleagues has been, and is, invaluable. A special thank is due to Torbjørn, for volunteering to ensure that the long list of references are in place, and to Trude, my “good neighbour” in the office next to mine, for almost daily encouragements and the practical help during the finishing phase. Other colleagues at Statistics Norway are also part of my personal community. In particular, I would like to mention, and thank, the members of our internal film club, “SeSåBra” (“LookSoGood”), for contributing to taking my mind off the stressful aspects of the job, not least the frustrations involved in finishing this thesis.

Off work, a crucial element in my personal community is formed by fellow members of Norsk Drømmeforening (The Norwegian Dream Association). Special thanks are due to the members of my dream interpretation group, where dreams are used as a resource in furthering self-development and personal growth. My own experience certainly attests to the reality of friendships being formed by participating in the arena of voluntary organisations (cf. paper I). I also thank my other good friends, and not least my family in Norway: Trond, Liv, Håvard and Ragna. Although the family is rather small, and geographically dispersed, the superior quality outweighs the lack of quantity.

My personal community does not by any means coincide with the local community where I live, but there is some overlap. I have used the “great good places” (to cite Ray Oldenburg) in the local community, Torshov, during the finishing phase of the dissertation work. I would like to thank the staff at Soria Moria Restaurant and Torshov ItBar for providing excellent “third places”, creating an atmosphere where I at times was able to concentrate better than in the first and second places (home and office).

Finally, I would like to thank Grete Borge in Statistics Norway and Carole Hognestad at TransProof Services for always being serviceminded and doing a great job of improving my English. Carole Hognestad also translated paper I into English. I thank Liv Hansen at Statistics Norway for her excellent job in the making of figures.

Needless to say, the responsibility for any faults is entirely mine.

Oslo, April 2008

Anders Barstad

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1. INTRODUCTION

Background

Welfare trends in modern society are, at least on first glance, paradoxical. On the one hand we have the tremendous increase in economic growth, income and material well-being. On the other hand many welfare problems persist; some even seem to have increased. The level of subjective well-being has been fairly stable, and there are reports of higher rates of suicide and crime (Layard, 2005). In Norway, the number of unhappy people was virtually unchanged between 1985 and 2001 (Barstad and Hellevik, 2004). There was a substantial increase in the Norwegian suicide rate from 1970 to the end of the 1980s, followed by a decline (details are given in paper II). Despite the decline, the overall suicide rate in Norway is still considerably higher today than in 1970. A study investigating depression found that, although there was no overall increase of depression, young men (18-34) experienced more depression in 2001 than 11 years before (Sandanger et al., 2007). Crime rates are up, in Norway as in many other countries, particularly drug-related crime rates (Barstad and Hellevik, 2004).

The recognition that the welfare problems of modern society do not vanish with increasing material wealth is not a new one. In fact it was one of the motivations behind the so-called "social indicators movement" that started up in the 1960s. As Tåhlin (1990: p. 155) puts it: "The connection between economic growth and improved living conditions was no longer viewed as self-evident and unproblematic, but was instead considered to be in need of empirical assessment". It was vital for public information and debate that the dominance of economic indicators was broken. The economic indicators were to be supplemented by a system of social indicators. To develop good social indicators, it was deemed necessary to have nationally representative surveys of living conditions. The first survey of this kind in Scandinavia was *The Level of Living Survey*, carried out in Sweden in 1968. In the Swedish approach level of living was defined in terms of command over resources, and subdivided into 9 components. One of the components was "family and social integration" (Tåhlin, 1990: p. 160).

There are examples, in the 19th century, of empirical studies of living conditions, using the author's own observations and what little there could be found of official statistics. Friedrich Engels wrote a famous book on the condition of the English working class (Engels [1845], 1993) and in Norway the priest Eilert Sundt wrote similar studies (Sundt, 1858). It was not until the 1960s however, that a systematic collection of data covering a broad range of living conditions was started. The Swedish survey became a model for the first Norwegian Level of Living Survey in 1973. A system of repeated Level of Living Surveys was established in Norway at the end of the 1970s, beginning with the Level of Living Survey 1980.

The aim of the thesis

This thesis seeks to contribute to a deeper understanding of welfare trends in modern society, using Norway as a case. Several authors have claimed that negative trends of social integration are one of the reasons why unhappiness and mental health problems persist, in spite of economic growth and concomitant improvements in living conditions (examples are Lane, 2000, and Layard, 2005). In classical sociology, Emile Durkheim saw increasing suicide rates in Europe during the 19th century as a consequence of social disintegration. How negative have trends in social integration really been, and to what extent can social disintegration explain the "welfare paradox" mentioned above?"

More precisely, the thesis is organised around three main questions. The first is related to social integration as a component of level of living. What is the relation between social integration and the other level of living components, and how has this changed over time? Which groups of society are characterised by a low level of social integration? These questions are mainly answered in papers I and III. The second question is related to time trends. How has individual-level social integration developed over time? Here I use the questions posed in the Norwegian surveys of level of living from 1973 to 2005. Are trends really as negative as often maintained? This question is mainly addressed in

paper III. Third, what are the individual-level welfare consequences of changes in social integration? Here I look primarily at consequences for suicide rates (paper II), and the consequences of marital dissolution for changes in mental health (paper IV).

The importance of studying trends in social integration is underlined by a growing amount of research showing how morbidity and longevity are influenced by social integration (Berkman et al., 1979; Berkman, 1985; Mookadam and Arthur, 2004; Cacioppo and Hawkley, 2003; Loving et al., 2006). For example, a recent French study found that socially isolated men had a higher mortality risk than those most integrated, not only related to suicides, but also to accidents and cancer. These associations were independent of a range of other risk factors, like smoking, alcohol consumption and self-rated health (Berkman et al., 2004)¹.

2. PERSPECTIVES ON SOCIAL INTEGRATION

2.1 Dimensions of social integration

What is social integration? The Latin word “integer” can be translated as “whole” and “essential” (Østerberg, 1985: p. 23). Integration means connecting parts into a larger whole. In the context of social integration the parts are individuals, groups or more large-scale social categories like classes. The social wholes can be groups, classes, nation states or “world society”. The concept of social integration can thus be used as a concept on a macro level, for instance related to how collective actors interact and compose a whole within a nation state, on a meso (group) level and finally on a micro (individual) level (Mortensen, 1995).

The parts can also be subsystems. David Lockwood makes a distinction between system integration, which is defined as the conflictual or orderly relations between institutional subsystems, and social integration, which is the orderly or conflictual relations between collective actors (Lockwood, 1992). This has some resemblance to the famous distinction by Habermas between life world (social integration) and system (system integration).

In this dissertation, the concept of social integration mostly refers to the integration of individuals into social groups. However, I will also discuss integration at the meso and macro levels, in so far as it has relevance for micro-level social integration. In a further discussion of the concept, it is useful to separate between four dimensions of social integration, as outlined in table 1.

¹ The mechanisms behind are still unclear. The experience of social isolation is a stressor that might have negative physiological influences. Blood pressure is higher among lonely than non-lonely individuals (Cacioppo and Hawkley, 2003). Lonely individuals also report more problems related to sleeping than the non-lonely. Sleep is a quintessential part of the body’s restorative and repairing functions (Cacioppo and Hawkley, 2003). In addition, several studies have shown immune system deficits in lonely persons (cited in Loving et al., 2006: p. 393).

Table 1. Dimensions of social integration

	Objective	Subjective
Quantitative	Frequency of contact Size of network Quantitative aspects of network structure	Experience of quantity Loneliness of social isolation
Qualitative	Negative and positive aspects of relations Support given/received Reciprocity Quality of rituals	Experience of quality Feelings of belonging Loneliness of emotional isolation Collective effervescence

Objective, quantitative characteristics

Objectively, social integration is related to certain quantitative and qualitative characteristics of individual, micro-level social relations. The use of the phrase “objective” means that it is possible (at least in principle) to determine these characteristics by means of outside observation, without asking individuals about their feelings and evaluations. The frequency of face-to-face interaction is the primary quantitative characteristic at the individual level. Others are the size of a person's network. Research indicates that quantitative measures (frequency of contact, length of time together) are independently related to intimacy and relational satisfaction in close relationships, although qualitative measures are more important. Only face-to-face contact matters, not the frequency of phone contact (Emmers-Sommer, 2004). Mediated interaction is not a substitute for the lack of face-to-face meetings. Studies of commuter marriages and other long-distance relationships suggest that regular face-to-face-interaction is the most important requisite for satisfying the "need to belong", although frequent telephone conversations are useful for sharing information and discussing practical matters (see references in Baumeister and Leary, 1995: pp. 512-513). Collins (2004: p. 64) argues that "bodily presence" is an important determinant of the intensity of interaction rituals.

The quantitative characteristics can also be measured at a meso level. Emile Durkheim, the classical proponent of social integration theory, emphasised frequency of social interaction (on the meso and macro level) as a characteristic of social integration. A group "...is more unified and powerful the more active and constant is the intercourse among its members" (Durkheim, [1897] 2000: p. 202). Consider the frequency of contact between neighbours in the local community. Even if a given individual does not have contact with his/her neighbours, and therefore may be regarded as isolated, he/she may still live in an integrated neighbourhood where neighbourly contact is frequent. This meso-level integration can have important repercussions at the micro level. In relation to feelings of loneliness, some research indicates that the personal contact with neighbours is less important than the experience of living in a neighbourhood where it is common for neighbours to have conversations (Tornstam, 1988; Thorsen, 1990).

Social integration at the meso and macro level can also be described and understood in terms of the structure of social networks. Two of the most important structural characteristics are density and plexity. Degree of density is defined as the number of relationships that exist in a network as a proportion of the total number possible (Allan, 2006: p. 659); how many of the persons in a given network know each other? Plexity is the number of roles or domains of action that is relevant in a social relation (an example of a multiplex relation is when the teacher of my child is also my neighbour and my friend). People are linked in several different spheres of activity or dimensions in their life (Calhoun 1991: p. 102). Multiplex networks with high degrees of density ("everyone knows everyone") are the main characteristics of socially integrated networks (Bø, 1993: pp. 102-105). In practice the term social network tends to be used, as Graham Allan suggests, as a proxy for the set of relationships an individual sustains (the personal network), without considering the ties connecting the others in the network (Allan, 2006: p. 660).

Objective, qualitative characteristics

The degree of social support is a key qualitative characteristic. Some researchers have defined social support in very broad terms, as "...the resources provided by other persons" (House and Kahn, 1985), and distinguished four types of support: emotional support (expressions of love and care), appraisal support (help in evaluating and giving meaning to difficult life situations), informational support (giving information on relevant resources and ways of handling a situation) and finally instrumental-material support (different forms of practical or material help, like caring for a disabled person or supplying extra money).

Perhaps the most cited definition of social support, however, is the one provided by Cobb (1976), who linked social support to three specific kinds of information: information leading a person to believe that he is cared for and loved, information leading a person to believe that he is esteemed and valued and lastly information leading a person to believe that he belongs to a network of communication and mutual obligation (Cobb, 1976: pp. 300-301). It is important to distinguish between supportive behaviour, i.e. the actual support that helpers extend when providing assistance (belonging to the objective dimension), and perceived support, i.e. the support as perceived by the recipient (belonging to the subjective dimension). As can be seen, the definition by Cobb emphasises the subjective dimension, in contrast to the definition by House and Kahn. Research indicates that both the objective and subjective aspects of social support are of relevance for understanding differences in mental health (Turner and Turner, 1999). I will delve more deeply into this matter in chapter 4.

Another side of the qualitative dimension is the negative aspects, such as criticisms and degree of conflict. This has been called *social undermining*, in direct contrast to social support. It has been shown that social undermining has a strong negative effect on mental health, even stronger than the positive effect of social support (reviewed in chapter 4).

In his study of the social causes of suicide, Durkheim was not much concerned with the manifestations of supportive behaviour as such. However, the vitality of collective life can be seen as the crucial qualitative dimension for Durkheim. He regarded this vitality as a support for the individual: "There is, in short, in a cohesive and animated society a constant interchange of ideas and feelings from each to all, something like a mutual moral support, which instead of throwing the individual on his own resources leads him to share in the collective energy and supports him when exhausted" (Durkheim, [1897] 2000: p. 210).

These ideas were developed further in his work on the sociology of religion (Durkheim [1912] 1995). Collins (2004) has combined the work of Durkheim and Goffman ([1967] 2005) into a general theory of interaction rituals. In the perspective of Collins, society is held together by the mechanism of social rituals. There are four basic ingredients in an interaction ritual: 1. Concentration. Two or more people are physically assembled in the same place, 2. There are boundaries to outsiders, 3. There is a mutual focus of attention on a common object or activity, 4. There is a sharing of common mood or emotional experience. All these ingredients feed back on each other, most importantly ingredients 3 and 4. "The key process is participants' mutual entrainment of emotion and attention, producing a shared emotional/cognitive experience" (Collins, 2004: p. 48). In "successful" interaction rituals there is an intensification of shared experience, what Durkheim called collective effervescence. The degree of "success" achieved by social rituals is a way of describing the qualitative dimension of social integration. "Failed" rituals have a low level of collective effervescence and there is little entrainment. On the subjective side there is little or no feeling of group solidarity, of membership in the group.

The most basic of all interaction rituals is sociable conversation. Solidarity is constructed and intensified within conversation rituals by rhythmic coordination of utterances and bodily movements. This rhythmic coordination is correlated with solidarity (liking, feelings of rapport, see Collins, 2004: p. 76).

Being a member of social groups gives the opportunity to participate in the interaction rituals of the groups. Persons who are single (not married or cohabitants) are outsiders to the interaction rituals that create and re-create the special group solidarity ("love") of these institutions. A crucial form of interaction ritual in marriage and cohabitation is the sexual interaction ritual. Sexual intercourse is a ritual of love, and has all the basic ingredients of an interaction ritual: bodily co-presence, strong mutual focus of attention, shared mood and typically very strong barriers to outsiders (Collins, 2004: p. 231). Close friendships can also be described in terms of interaction ritual chains, characterised by common activities (a series of intimate conversations) that create a strong feeling of "we" and a readiness to sacrifice oneself for the friend (Wallace and Hartley, 1988).

Subjective, quantitative and qualitative characteristics

Let us now turn to the subjective dimensions. A decisive aspect of the subjective dimensions is the experience of belonging or membership on the one hand, and the experience of loneliness and being an outsider or "stranger" on the other. Feelings of loneliness can be seen as the outcome of quantitative characteristics of social integration, or qualitative, or both. This is reflected in the often cited distinction between the loneliness of social isolation and the loneliness of emotional isolation (Weiss, 1973, 1989; De Jong Gierveld et al., 2006). The first form of loneliness is due to "the absence of community", the general lack of contact with friends, relatives, colleagues or others; the second is due to the absence of an attachment figure, a partner or best friend. The first type of loneliness is exemplified by a person who has moved to a new part of the country and who misses the contact with friends and relatives, the second type is characteristic of the feelings that follow from the dissolution of partnerships; through widowhood, divorce or otherwise. A general definition of loneliness is: "...a subjective and negative experience, and the outcome of a cognitive evaluation of the match between the quantity and quality of existing relationships and relationship standards" (De Jong Gierveld et al., 2006: p. 486). One of the most used loneliness scales, the De Jong Gierveld scale, was developed with the distinction between social and emotional loneliness in mind (see further discussion in chapter 4.8).

Loneliness can also be seen in the context of wider, socio-cultural influences. According to Sadler and Johnson (1981), there are four dimensions in the experience of loneliness: Cosmic or existential, cultural, social and interpersonal. Very simplified these dimensions can be seen as an unwanted separation from different forms of units or communities: God, nature or other "cosmic" units (cosmic loneliness), systems of normative meanings and values (cultural loneliness), organised groups (social loneliness) and finally "significant others" (interpersonal loneliness). It is presumed that loneliness becomes particularly difficult to handle when it comprises several dimensions. An example of cosmic loneliness is when formerly religious persons lose their faith in God, while immigrants that have lost contact with their culture of origin are an illustration of cultural loneliness. This is an interesting conceptualisation, but has, as far as I know, not been used in empirical studies. Considering cosmic loneliness, an Australian study found that persons with strong religious beliefs were less lonely than others (Lauder et al., 2006), while a Dutch survey found no relation between religiousness and loneliness (Hortulanus et al., 2006). The distinction between social and interpersonal loneliness has some resemblance to the distinction between social and emotional loneliness.

Besides loneliness, other aspects of the subjective dimension are the experience of being a member of a given community, the experience of support, of being loved, esteemed and belonging to a network of mutual obligation (cf. Cobb, 1976) and the Durkheimian experience of collective effervescence, the "...salutary sentiment of solidarity" (Durkheim [1897] 2000: p. 374). Bollen and Hoyle (1990) show that feelings of enthusiasm about a particular group go hand in hand with feelings of belonging and membership. They developed a "Perceived Cohesion Scale" with two parts: "Sense of belonging", reflected in items like "I feel a sense of belonging to (name of the group)" and "feelings of morale", reflected in items like "I am enthusiastic about (name of the group)". The correlation between sense of belonging and feelings of morale was over .90 in two separate samples.

The experience of group solidarity must be distinguished from perceived social support, although there is every reason to believe that they are empirically connected. Some researchers have maintained that

the concept of companionship should be distinguished from social support. Companionship is simply the pleasures of social participation "as such", while social support is consciously intended to be supportive (Sarason and Sarason, 2006: p. 435). This has some resemblance to Durkheim's conceptualisation of the "moral support" inherent in the vitality of collective life.

Final comment

The distinctions outlined in table 1 are a framework for organizing thoughts and empirical data on the subject of social integration. A problem with the framework that quickly springs to mind is the lack of clear boundaries. For example, although size of network in principle could be assessed by outside observation, this is usually impractical and rarely done. Instead, persons are asked questions concerning the size of their network, introducing some kind of subjective evaluation. Also, when answering questions on number of friends, there is inevitably both a quantitative and a qualitative aspect involved, since the term "friend" entails a qualitative assessment of a personal relationship. Regarding the actual amount of social support that is given or received, this qualitative aspect of social integration is also usually measured by asking the giver/recipient, again involving a subjective evaluation. In practice, the boundaries are blurred, but this does not make the distinctions less meaningful or important to consider.

To understand what social integration is, and how integration affects welfare, it is necessary to consider all four quadrants of table 1. For example, spending much time alone (a quantitative, objective characteristic) does not necessarily entail feelings of social or emotional isolation. Some may, at least temporarily, wish to be alone, thereby being able to have time for reflection and meditation. This positive, voluntary aspect of being alone is often termed solitude (Long and Averill, 2003). Baumeister and Leary (1995) emphasise that to satisfy "the need to belong" a person needs *both* frequent *and* affectively positive interactions with the same individuals. They also underline the need for temporal stability and an: "...enduring framework of affective concern for each other's welfare" (Baumeister and Leary, 1995, 497). Both quantitative and qualitative characteristics are crucial. The same point can be made considering interaction rituals. The rituals have to be repeated regularly to uphold the feelings of solidarity and group membership. For example, Collins (2004: p. 237) suggests that: "...strong rituals keep up strong group relationships only for about a week" (here he refers to the typical "once a week" pattern of both religious rituals, i.e. going to church on Sundays, and sexual rituals, considering the fact that most persons in stable couple relationships have sex about once a week).

A recent, comprehensive Dutch study of social isolation (Hortulanus et al., 2006) is an example of a work that includes both the objective and the subjective dimensions. They combine an objective, quantitative measure (size of network) with a subjective measure (loneliness) that supposedly covers experienced deficits of the network, quantitative and qualitative² (De Jong Gierveld loneliness scale). They then create a typology of social contacts, ranging from the most integrated ("the socially competent") who have a large network and do not feel lonely, to the most isolated (the "socially isolated"), who have a small network and feel lonely.

The objective and subjective characteristics are correlated, but the correlations are mostly moderate. In the Dutch study, persons with large networks felt somewhat less lonely than person with small networks ($r=-0.23$). The size of the support network also had a modest correlation with the amount of support received ($r=0.17$, Hortulanus et al., 2006, 49). The quality of social networks is more strongly related to loneliness than quantity. In a meta-analysis of 235 studies on loneliness among older adults, the mean correlation of quality of social contacts with loneliness was -0.29 , while quantitative measures correlated at -0.16 (a statistically significant difference, Pinquart and Sörensen, 2001). The

² Again, the distinction between "objective" and "subjective" is a difference in degree and not in kind. The size of the network was measured by questions tracing the number of people the respondent could count on for regular support and companionship, which of course involves subjective (and qualitative) considerations (Hortulanus et al., 2006: pp. 41-42).

quality of the relationship with a life partner is also an important determinant of loneliness (De Jong-Gierveld and van Tilburg, 1989).

2.2 Levels and types of social relations

There are many types of social relations and groups that can serve an integrating function, give support and contribute to feelings of membership and solidarity. Are some more important than others, and what connects them? Table 2.2 gives an overview of different types of social relations or "wholes". The concepts of tertiary and quaternary relationships are borrowed from Calhoun (1992), but I use them somewhat differently³.

Charles H. Cooley ([1909] 1980) coined the concept of "primary groups", by which he meant "...those characterized by intimate face-to-face association and cooperation" (p. 165). He described the primary groups as a "...certain fusion of individualities in a common whole", a wholeness that could be expressed as a "we". "One lives in the feeling of the whole and finds the chief aims of his will in that feeling" (Cooley, [1909] 1980: p. 165). The most important forms of primary groups were, according to Cooley, the family, the playgroup of children, and neighbourhood groups. However, primary groups could also form elsewhere, such as in clubs, in school or at work.

Table 2. Different forms of social relations

	Primary	Secondary	Tertiary	Quaternary
Examples	Partner Family Friends	Work colleagues Fellow students Organisation members Neighbours	Temporary group relations Fellow spectators Customer/client	Nation/world Class Market Bureaucracies
Face-to-face?	Yes	Yes	Yes	No
Network tie	Strong	Strong/weak	Weak	-
Network Structure	Dense	Dense/loose	Loose	-

When I use the concept of primary relations in this dissertation (mostly in paper I), it refers to relationships with partner, family and friends. These relations are to a greater extent characterised by affectivity and non-instrumentality than other relations. Using the language of network theory, network ties are usually strong and there is a relatively high degree of density. The distinction between "strong" and "weak" ties (Granovetter 1973, 1982) is crucial. Strong ties are typically deeply emotional and time-consuming, while weak ties are the opposite. The network structure is dense, in particular in the family. All family members usually know each other, while there is less closure in the network of friends. However, the close friends of a person are often linked.

Secondary relations are found at work, in school, in voluntary organisations, in the neighbourhood or in informal groups (like self-help groups). Here network ties are generally weaker, and the network structure looser. Relations are less affective and more instrumental. These differences are a matter of degree rather than of kind. Some groups formed at work or in voluntary organisations may be very time-consuming and emotional. There are obviously also many cases of overlapping, where fellow

³ For Calhoun, tertiary relationships are indirect, mediated relationships, but the parties are well aware of the relationship. Quaternary relationships are also mediated relationships, not face-to-face, but occur outside the attention and awareness of at least one of the parties involved. These relations are products of surveillance. Examples are relations created by the tapping of telephones (Calhoun, 1992: p. 219).

work colleagues or organisation members are friends or family members (constituting multiplex social relations).

One way of putting the difference between primary and secondary groups is by using the definition of social support given by Cobb (1976). It is first and foremost in primary groups that a person receives the information that he is cared for and loved. "Love" is a legitimate, even normatively expected word in the family and in some close friendships. In secondary groups participants expect to be esteemed and valued, not necessarily loved. The third form of support, information leading a person to believe that he belongs to a network of communication and mutual obligation, is perhaps mostly given by family, friends and work groups.

Granovetter claims that far from being a source of alienation, secondary and weak ties have important integrative functions. Strong ties integrate the individual into close-knit groups, but otherwise serve to fragment society into small groups. It is weak ties that connect these groups to each other and to society at large. The reason is that strong and weak ties differ in their network structure. A network of strong ties is dense, while a network of weak ties is relatively loose. My network of close friends knows each other, while my network of acquaintances does not. In addition, in groups with strong ties people are usually very much alike. Compared to one's close and strong ties, weak tie relations are more likely to be with dissimilar others, people who move in circles different from one's own. Individuals with few weak ties therefore stand at risk of losing information from "...distant parts of the social system and will be confined to the provincial news and views of their close friends" (Granovetter, 1982: p. 106). For purposes of social integration and also other aspects of welfare, a diversity of ties is a benefit.

Tertiary relations are all other face-to-face interactions, many of them with strangers we do not know by name. They range from chance meetings in an elevator to interactions with fellow spectators at a sports event or with sellers and buyers in the market. Although transitory in nature, some of these relations constitute highly successful interaction rituals. Sports events and pop concerts are examples of rituals that can create very strong forms of collective effervescence (Collins, 2004: p. 59).

Finally, quaternary relations differ from other relations by not being face-to-face. They are indirect relations, entirely mediated through machines, correspondence or other persons (Calhoun, 1992: p. 218). This can for instance be the relation of most workers to their boss in large companies. Many of the dealings in the market place also exemplify these relations. Some quaternary relations involve social categories more than actual groups. They are "imagined communities". Both nations and classes are, in one sense, "imagined communities", since our relation to these social categories for the most part is mediated and not based on face-to-face interaction (Calhoun, 1991: p. 108). The work of Cooley was cited earlier, he described primary groups as a "we". Quaternary social relations can also be a source of "we", most evident in the case of nationality: "We Norwegians". I only know a fraction of all Norwegians, but can still relate to, and identify with, the social category of Norwegians. As Calhoun (1991) argues convincingly, the building of imagined communities has been furthered by the new information technologies, not least television.

2.3 Relation to social capital theory

What is the relation between the dimensions of social integration presented here and the concept of social capital? In many ways, social capital is only a new name for the same phenomena that is covered by the concept of social integration. Alejandro Portes refers to the classical works of Durkheim and Marx, when commenting on the background of the concept, and states that: "...the term does not embody any idea really new to sociologist" (Portes, 1998: p. 1). The basic premise for social capital theory is that social networks have value, both individually and collectively (Putnam, 2000, Putnam and Goss, 2002). Social capital is "social" because it represents resources available through

networks of individuals. Social capital is "capital" because it can create values in the same way as physical capital and because we can invest in networking (Putnam and Goss, 2002: p. 8). One can notice how close the first of these viewpoints is to one of the definitions of social support cited earlier, as "the resources provided by other persons".

An influential definition of social capital was formulated by James Coleman. Coleman's definition is very broad (Coleman 1988, 1990). Social capital is aspects of social structure that facilitate certain actions of individuals who are within the structure. Unlike other forms of capital it inheres in the structure of relations between and among persons, not in individuals or in physical objects. He emphasises the differential effects of social capital: "A given form of social capital that is valuable in facilitating certain actions may be useless or even harmful to others" (Coleman, 1990: p. 302). There are many different forms: obligations and expectations, information potential, norms and effective sanctions, authority relations and social organisations. These are all aspects of social structure that can facilitate actions. The value of obligations and expectations depend on the level of trustworthiness of the social environment. To illustrate the effects of a mutual system of trust, Coleman takes the example of a couple that places extensive trust in each other. For the couple the relation is extremely valuable, making possible actions (the confiding of inner feelings) that would not have been possible without the system. In relation to norms, an especially important form of social capital is the norm that one should act on the basis of the interests of the collectivity, and not on the basis of self-interest. This norm is an important asset for groups and communities trying to overcome collective action problems.

Coleman has inspired many other researchers, not least Robert Putnam. An interesting example of how the concept is used empirically is Coleman's work on the link between social capital and the development of human capital in the family. The relation between family members constitutes the social capital of the family. Important aspects of family relations are the amounts of time parents spend with their children, and the degree of parental attention and support. Coleman shows that drop-out rates in high school are related to presumed differences in social capital, i.e. there are higher drop-out rates in one-parent households and in households with many children (Coleman, 1988).

Pierre Bourdieu is also concerned with the link between different forms of capital, including social capital. He defines social capital as "...the aggregate of the actual or potential resources which are linked... to membership in a group..." (Bourdieu, 1986: p. 248). Bourdieu is concerned with how social capital and other forms of capital explain regularities of social and economic life. Financial, cultural, symbolic and social capital represent power, structuring the vertical relations of society. Although economic inequalities are the most important, different access to other forms of capital are also essential for understanding the vertical power relations.

Like Coleman, Bourdieu has a group perspective on social capital. Social capital is a collective asset shared by members of a group. But as Lin (2001) points out, for Bourdieu social capital is a way of maintaining and reproducing the dominant class. Coleman (with Putnam) sees social capital more as a public good; the collective assets are available to all members of a group or community. Lin traces the theoretical lineage of these two contrasting views to Marx and Durkheim respectively.

It is useful to distinguish between two different strands of the social capital literature, in terms of empirical studies. The first focuses on social capital as an individual asset with important consequences for welfare (although the source of the asset is found on a group level). Examples of the first type of analysis are a number of studies in the field of stratification, linking social capital to differences in social mobility patterns and access to employment (Portes, 1998: p. 12-13). Other examples are studies on social capital as sources of family support (much in line with Coleman, 1988) and social control (Portes, 1998: p. 9-15).

The second strand focuses on social capital as a feature of communities and nations, with special emphasis on how social capital is an asset in solving collective action problems. This line of reasoning is especially associated with Robert Putnam. In his seminal 1993 book, Putnam defines social capital,

with reference to Coleman, as "...features of social organization, such as trust, norms, and networks, that can improve the efficiency of society by facilitating coordinated actions..." (Putnam, 1993: p. 167). Putnam uses the concept of social capital to explain differences in the workings of democracy between regions in Italy. He maintains that networks of civic engagement are important for creating trust and strengthening norms of cooperation. The denser the networks of civic engagement, the more likely people are to cooperate for mutual benefit.

While Putnam in his 1993 book was concerned with the solving of collective action problems and civic connections/attitudes, in a later book the focus is more encompassing (Putnam, 2000). Social capital has many different shapes and sizes, from a person's extended family to Internet chat groups and to poker mates. In the chapter on "Health and happiness" he uses concepts like social integration and support, without distinguishing them from social capital. Still, the decline of "civicness" remains the foremost theme. Important for the arguments of Putnam is the distinction between bridging (inclusive) and bonding (exclusive) social capital. Bonding social capital refers to social networks that bring people together who are similar to one another in important respects, in contrast bridging social capital brings people together who are dissimilar and therefore cross social cleavages (Putnam, 2000; Putnam and Goss, 2002: p. 11). Having a reasonable amount of bridging social capital is important for democracy. Strong ties are often of the bonding type, while weak ties are more bridging, precisely one of the "strengths of weak ties".

All in all, while not necessarily capturing anything really "new", both theoretical and empirical work in the field of social capital adds important insights into precisely how social integration affects human welfare. Theory and research on social capital show how the resources embedded in social integration are utilised by actors, individual or collective, to achieve their aims and obtain benefits (or vice versa, when the resources are lacking). Social capital theorists emphasise both subjective and objective aspects of social capital. In contrast to social integration, however, the prime subjective aspect is trust, not feelings of belonging. It is easy to see that trust can be important both as a cause and a consequence of social integration. It is easier to reach out and form new bonds when a person has trusting attitudes; at the same time experiences in social networks diminish or strengthen trusting attitudes. For solving collective action problems and creating bridging social capital, generalised trust is of particular importance.

The concepts of bonding and bridging social capital are an important reminder of the fact that even if individuals are completely integrated into different forms of small-groups and associations, this does not guarantee an integrated society. A historical illustration is the case of German civil society during the Weimar Republic. Germany had a rich associational life at this time, but its associational life was organised within group boundaries. One example is that Catholics and bourgeois Protestants had their own separate bird-watching clubs (Berman, 1997). In the long run an organisational structure based primarily on bonding relations undermines democracy and the cohesiveness of society.

3. PERSPECTIVES ON TRENDS IN SOCIAL INTEGRATION

3.1 Theories of modernity

Discussions of trends in social integration are often placed within the framework of theories of macro-social changes. The most influential of these are theories of transitions from premodern to modern societies, and further from modern to "high modern" or "postmodern" societies.

The Latin word *modernus*, from *modo* ("recently", just now") was first used in the fifth century AD, as an antonym to *antiquus* (Kumar, 1995: p. 67). Although the concept was an invention of the "dark Middle Ages", the birth of modern society is usually pinpointed to the last half of the eighteenth century, associated with the societal changes that arose in West Europe after the dual events of the Industrial Revolution and the French Revolution. While the French Revolution gave modernity its characteristic form and consciousness, the Industrial Revolution gave modernity its material substance (Kumar, 1995: pp. 81-82). Among the most important characteristics of the modern society are a capitalist market economy, rational-bureaucratic administrations, industrial technology, urbanisation and a representative democracy (Gunteriusen, 1999: pp. 44-45).

Rationalisation is a key word in theories of modernity. The process of rationalisation can be given many different meanings, but often refers to the replacement of religious explanations of the world with rational-secular explanations. The culture of rationality is based on science. Both nature and society are "de-mystified" by explanations given by science (Hortulanus et al, 2006, Gunteriusen, 1999). The view of modernity as equivalent to the expansion of rationality is above all attributed to Max Weber (Weber [1920] 1981). He saw rationalisation as a process of increasing formal rationality, meaning that actors make a choice of means and ends in reference to universally applied rules and regulations. The bureaucracy was the classic example of this rationalisation (Ritzer and Goodman, 2004: pp. 30-31).

Differentiation is another aspect of modernity, an important topic in many of the works of classical sociology. Multifunctional units are replaced everywhere by more specialised units (roles, institutions, organisations, see Mouzelis, 1999). For Durkheim, the increased division of labour created a mutual dependency. A society with an extensive division of labour could only function well if there was "organic solidarity", i.e. a moral accept of the individual differences, and moral expectations of reciprocity between the actors of the system. This was in contrast to the mechanical solidarity of premodern societies, based on equality rather than difference (Gunteriusen, 1999: pp. 108-109). Weber described the modernising process as an accelerating differentiation of spheres of value. Examples were science, economy, politics, art, religion and eroticism. One could see this differentiation as a form of rationalisation in its own right, but Weber also emphasised that there was an internal rationalisation within each sphere on the basis of the specific values in the sphere (Gunteriusen, 1999: pp. 149-152).

A third of the keys to understanding modernity is *individualisation*. Individualisation can be seen as a process where individuals increasingly are, and/or seek to be, *autonomous* and *authentic*. Autonomy implies that the individual is an independent and autonomous source of action and thinking, while authenticity is having "individuality" and unique personal characteristics (Aakvaag, 2006). Individualisation springs out of the liberation of individuals from the constraints of premodern collectivism. It can also be seen as a consequence of differentiation. The institutional differentiation of society makes it both possible and necessary for individuals to construct their own identity, when they are forced to combine activities/roles, and interpret life, across the many different subsystems (Aakvaag, 2006, referring to the work of Niklas Luhmann).

Georg Simmel ([1957] 1971, [1908] 1971) also traced the development of modern individuality in its two forms: As individual freedom (autonomy) from all kinds of restraint, and as individual uniqueness, i.e. as the affirmation of the value of being different. The first form of individuality was based on the notion of the natural equality of individuals that emerged in the eighteenth century. The second form was above all furthered by Romanticism, in the nineteenth century. Simmel saw the expansion of both forms as promoted by the enlargement of social circles that followed in the wake of modernisation. To understand this, one can think of the relatively small and narrow circles of feudalism (village, clan) as compared to the nation states and big cities of modern society. Individuality of both forms has a much more fertile ground in the second kind of society. There is more freedom of choice, for example freedom in choosing a spouse or freedom in economic initiative. When the size of the group expands there will also be an increase of social differentiation. There is more competition and a greater need of specialisation, a division of labour⁴.

The fruitfulness of referring to modernity as a unitary concept is questionable, however. An example is the process of rationality. There are also powerful non-rational aspects of modern societal development. The romanticism of the nineteenth century emphasised the importance of imagination, of passions and emotionality. It had visions of "another modernity" characterised by a "warmer" social life. Guneriussen (1999) describes two versions of modern individualism, *rational individualism* and *non-rational (romantic) individualism*. The vision of rational individualism is that of actors being liberated from oppressive, traditional communities, securing benefits by means of strategic action (liberalism, utilitarianism). Non-rational individualism embodies an ideal of expressive actors. Actors should be in contact with, find and express their inner self (ideals characteristic of movements like the hippie culture and of surrealism). The emergence of romanticism and non-rational individualism is partly a reaction to the modernising influences, but could also be seen as characteristically modern (Kumar, 1995). It may be better to talk of different "modernities" than of modernity as such. Modernity entails a number of contradictory values and tendencies (Guneriusen, 1999).

This line of thinking also seems to accord with Charles Taylor's description of the modern identity, shaped by a new moral culture that emerged within the upper middle classes in England, America, and France in the seventeenth and eighteenth century. This was an individualist culture, since it cherished the values of autonomy, self-exploration, in particular of feeling, and personal commitment. These characteristics, especially the first two, required a heightened reflexivity and "inwardness". However, this was also a culture that accorded special significance to universal justice and to productive work and the family, "...which is ideally a close community of love, in which the members find an important part of their human fulfilment" (Taylor, 1989: p. 305). For example, Taylor describes how a growing idealisation of marriage based on affection and true companionship started among the wealthier classes in the Anglo-Saxon countries and France in the late seventeenth century (Taylor, 1989: p. 289-291). This idealisation went hand in hand with individualisation, exemplified by increasing emphasis on the value of personal choice. The family withdrew from the immediate control of the wider society; simultaneously there was an increased demand for privacy. In general, Taylor describes the modern identity as a "package" filled with tensions and dilemmas, characterised both by disengaged, instrumental reason and by creative imagination, by ideals of personal self-fulfilment as well as the more communal ideals of universal benevolence and companionate marriage.

⁴ To what degree individualisation represents a real expansion in freedom of choice, is a complex question. Simmel ([1908] 1971: pp. 269-270) has an interesting discussion of this, related to the choice of a marriage partner. Although the circle of possible spouses has been vastly expanded, the needs and wishes have also probably become much more specific and individual. The perceived uniqueness of individual personality corresponds to a need for a similar uniqueness of a potential partner. Individual freedom is therefore "...freedom that is limited by individuality" (Simmel [1908] 1971: p. 269).

3.2 Postmodernity?

There are a number of theories on the nature of contemporary modern society. Some claim that modern society has evolved into something radically new during the last 30-40 years (evidenced in terms like postmodernism, post-fordism, post-industrial society, information society), while others see new trends as evidence of a further development of modernity, as "high" or "late" modernity (Giddens, 1994). It seems more appealing to see the main trends of the last decades as a form of "maturing" of the modern capitalist economy, rather than as a radically new form of society. The changes are of course evident. Widespread, profound and rapid changes are an integral part of modern society, as emphasised by many authors. Modernity is "...itself essentially revolutionary, a permanent revolution of ideas and institutions" (Kumar, 1995: p. 81; Lash and Urry, 1994). But it is questionable to equate such changes with changes in the fundamental organising principles of society. One example is the spread of information technology. While this obviously has had a profound impact on many economic, social and cultural characteristics of society, it has hardly changed society in a way that can be compared with the Industrial Revolution (Kumar, 1995: p. 162).

The term "late" or "high" modernity is a term that acknowledges the profound changes of Western societies during the last 3-4 decades, but sees these changes as occurring within the logic of modernity, so to speak. Modernity is deepened or, to cite Giddens, radicalised (Giddens, 1994). A key word is *globalisation*. Whereas in early modernity people were incorporated into the nation state, in late modernity there is a similar incorporation into global arenas of participation. This is above all made possible by the new information technologies. The economy has increasingly become "informational" (Castells, 1996). Knowledge and information is produced in an ever-expanding quantity. Knowledge is "implanted" in machines through automation, and in people through expanded higher education (Hage and Powers, 1992: p. 41). Fewer people are employed in the industrial sector. The service and information sectors employ the bulk of the work force.

These changes are evident in Norway, as in many other rich, Western countries. In Norway the percentage of the adult population with higher education has tripled during the last 35 years. Employment in the industrial sector of the economy, measured as a percentage of total employment, reached its peak around 1970 and has since fallen considerably. Three out of four employed persons are now working in the service sector (Kristiansen, 2006). The information and communication revolution has transformed daily life. The car and the television had their breakthrough in the 1960s. In 1967 the telephone was still something less than half of the households had access to. Today the telephone is accessible for nearly all. 94 per cent of persons in the age group 9-79 have their own mobile phone (Vaage, 2007). The late 1990s saw a tremendous increase in access to another communication channel: the Internet. The share of the population using Internet on an average day increased from 7 per cent in 1997 to 60 per cent in 2006 (Vaage, 2007).

Some theorists see late modernity as characterised by a more pronounced individualisation process than the earlier phase of modernity. For Ulrich Beck, the individualisation of the "second modernity" is a major challenge to the first modernity. The new features of the individualisation process in the second modernity is that it affects a much larger part of the population than before, and that it is a kind of labour market individualism, closely connected to the demands of the labour market (Beck and Beck-Gernsheim, 1995: p. 8). The labour markets demand education, mobility (social, occupational and geographical) and competition, demands that stand in contradiction to the demands of relationships. "Everyone" is now expected to live their own, independent life, outside the old bonds of family and class (Beck, 1992; Beck and Beck-Gernsheim, 1995, 2002).

Turning specifically to the cultural dimension, there have been a number of attempts to develop theories of value change in modern society. The most famous of these is Ronald Inglehart's contention that there has been a shift from materialist to post-materialist values. In contrast to the growing materialism following in the wake of the Industrial Revolution, there has been an intergenerational

shift in advanced industrial societies towards post-materialist and postmodern values. The existential security of the advanced societies leads the public to place increasing emphasis on issues like quality-of-life, democracy, environmental issues and self-expression (Hellevik 1996, 2008; Inglehart and Baker, 2000). Whether this is correct is a matter of great debate (Hellevik, 1996, 2008; Wilensky, 2002). An analysis of the changes in professed values in Norway, from 1985 to 2005, point, at least in some ways, in the opposite direction of those predicted by Inglehart. Since the end of the 1980s the population has become increasingly materialist in its value orientation (Hellevik, 2008). Only from 1985 to 1987, and from 2003 to 2005, was there a change in a non-materialist, idealist direction. Putnam (2000: pp. 272-274) cites evidence showing an increasing prevalence of materialistic attitudes in the case of America. However, there seems to be some truth in Inglehart's contentions that values are becoming "...increasingly rational, tolerant, trusting, and participatory" (Inglehart and Baker, 2000: p. 19) in advanced industrial societies. In the case of Norway, we see that Norwegians have become increasingly trusting from the beginning of the 1980s up to 2005/2006 (Hellevik, 2008). There is also evidence of a more liberal and tolerant attitude towards "deviant" acts like homosexuality, prostitution and divorce (Listhaug, 1998). Attitudes have also become more anti-authoritarian (Barstad and Hellevik, 2004). Parents today teach their children less authoritarian values than in earlier times. The percentage of the population agreeing that obedience and respect are the most important values a child should learn, was nearly 80 in 1957 and less than 40 in 1988 (Todal Jenssen, 1990). Instead, the values of responsibility and independence have become the most cherished goals a child should strive to learn. Tolerance is also a much more frequently mentioned goal of socialisation than obedience (Lindseth, 1998). These changes in the goals of primary socialisation are interesting, and can be interpreted as an empirical illustration of an individualisation process at the cultural level (cf. Taylor, 1989, and the ideal of autonomy as a source of the modern identity).

3.3 Consequences for social integration

A starting point: Pescosolido and Rubin on the "postmodern" network structure

What are the consequences of modernity, of its different dimensions and phases, for social relations? As a starting point, I will refer to the interesting article of Pescosolido and Rubin (2000). On the basis of Georg Simmel and network theory, they describe the changes in network affiliation from premodern to modern societies. The networks of premodern society are characterised by concentric circles. Participation in the smallest group, usually the family, also implies participation in larger groups. "Being born into a particular family often defined the borders of one's occupational, religious, and political spheres" (Pescosolido and Rubin, 2000: p. 55). Space and place largely coincided; the local polity was the central geographical reference point. The local community was the world. The strengths of premodern society in terms of welfare were, according to Simmel, the security and lack of ambiguity in the conditions of life. The downsides were little room for individual freedom and little tolerance of diversity. People were suspicious of anything outside of group boundaries. In modern society, the network circles are no longer concentric, but partly overlapping (intersecting). For example, work is separated from the home, "...the occupational sphere no longer circumscribes the family sphere" (Pescosolido and Rubin, 2000: p. 56). The prototypical geographical referencepoint becomes the nation state; space and time are increasingly separated. There is a greater element of choice and autonomy, more tolerance of diversity. The downsides are that the multiple group memberships become a source of internal and external conflict, and that the personal and local safety net is weakened.

Pescosolido and Rubin also apply the concept of network formation to the "postmodern" era. They tie postmodernism to the end of the "golden era" of post-war Western capitalism at the beginning of the 1970s. There were largescale, swift changes involving both globalisation of markets and culture, and the spread of computer technology. "Flexible accumulation", evidenced for example in the widespread use of short-term employment contracts, labour displacing and deskilling technologies, changed the possibilities for collective action. They see the contemporary network structure as a "spoke". The

social circles are connected, but some of them are only loosely bounded. There is considerably less overlap between circles than in the modern phase. Most importantly, "...individuals are not enmeshed within interconnected circles but rather stand outside of them, and their connections to institutions are multiple and often temporary, not single and lifelong. Individuals, over time, have connections to many workplaces, to many families, perhaps even to more than one religion" (Pescosolido and Rubin, 2000: p. 63). There is also an increase of indirect social network ties (cf. Calhoun, 1991, 1992, and table 2). The geographical reference point is "the global village". This structure poses problems for individual-level social integration, since both individual ties to different groups, and the groups themselves, "...are so temporary, ephemeral, and contingent" (p. 63). There is an increasing potential for alienation and isolation. Social ties have also become more demanding, requiring constant negotiations and attention. This means that social networks of the postmodern era require more resources and skills than the networks of earlier eras. Financial, social, and cognitive resources are important for the ability to maintain and renew relationships. On the positive side freedom and choice is more abundant than ever. The lack of overlap between social circles means that losses within one circle do not destroy the possibilities of support in other circles.

The arguments of Pescosolido and Rubin are summarised in table 3.

Table 3. Differences between premodern, modern and postmodern societies in types of social network formations and consequences for individual welfare. A synthesis of Pescosolido and Rubin (2000)

	Premodern	Modern	Postmodern
<i>Social network formation</i>	Concentric circles	Intersecting circles	"Spoke" structure, individual outside of circles Contingent, temporary ties
<i>Geographic reference point</i>	Local polity	Nation state	World society
<i>Space-time constellation</i>	Coincides	Increasingly separated	Increasingly separated
<i>Positive welfare consequences of network formation</i>	Security, lack of ambiguity	Increasing tolerance Increasing freedom and choice	Increasing tolerance Increasing freedom and choice
<i>Negative welfare consequences of network formation</i>	Low freedom Little tolerance Little regard for the individual	Weaker safety net Potential for conflict between multiple group memberships	Fragile bonds, require constant negotiations More insecurity Increased risk of alienation and isolation

On the basis of the preceding discussion, a range of critical questions can be raised, and I will return to several of them later, not least in chapter 8. Are the societal changes since the 1970s really as profound as implied by the term of postmodernity? Have social bonds really become so much more fragile and ephemeral? Is social isolation increasing? A point of criticism is the consequences of increasing freedom for the quality of social relations. If there is more freedom, there should also be more room for escaping relationships that are unfulfilling or unsupportive, creating a potential for less rather than more alienation.

Although Pescosolido and Rubin discuss both positive and negative aspects of "postmodern" society in relation to social integration, it is clearly the negative aspects that receive most attention. Particularly under the conditions of postmodernity, social integration becomes more problematic; there is a higher risk of isolation and alienation. This tendency to see modern society as causing major problems of social integration is, as we will see, very commonplace both in classical and contemporary sociology.

Consequences in classical sociology

Max Weber was perhaps the most pessimistic of the classical sociologists. He envisioned how the proliferation of bureaucratic organisations would destroy individual creativity and autonomy (Giddens, 1990: p. 7). According to Simmel and Weber, modernity created problems in obtaining a meaningful life. The increasing differentiation made it more difficult to construct a meaningful whole. Another problem was that many modern institutions demanded a de-personalisation of social relations (Guneriusen, 1999: p. 196). Simmel analysed life in the modern metropolis. The big cities are precisely the place where the characteristics of modernity: differentiation, rationalisation and individualisation, are most visible. While Simmel emphasized the freedom and independence of life in the big cities, he also saw loneliness as a negative side effect of this freedom (Simmel [1957] 1978: p. 97).

However, Weber also saw the potentiality of freedom, and escape from the "ironcage" of rationality, in some of the spheres of value that were produced by the differentiation process (cited in Guneriusen, 1999: pp. 189-191). While modernity has led to a powerful and encompassing rationalisation of social, economic and cultural life, on the other hand it has also laid the foundation for some completely different trends. One example is the development of sexuality as a sphere of its own, as a social domain where sexual activities are refined and made an object of pleasure beyond the constraints of traditional conventions. This can be seen as a positive side effect of the differentiation process (although, in a Durkheimian perspective, there is the risk of sexual anomie). Erotic love becomes a way of escaping the iron cage of rationality. Sexuality is the most powerful of all "irrational life forces", according to Weber. Here he touches upon a subject that became more commonplace in later theories, i.e. the increasing importance of love and intimacy in late modernity (an example is Beck, 1992, cited below). The world of art was also one of the differentiated life spheres that gave room for the experience of enchantment and ecstasy.

An interesting historical parallel can be drawn here. The positive consequences of differentiation for social relations were a recurrent theme for the thinkers of the Scottish Enlightenment (Adam Ferguson, Adam Smith and others). When the economy was established as a societal sector of its own, i.e. with the advent of commercial society, this was seen as a way of "purifying" personal relations of the influence from instrumentalism, so that friendships could be based solely on sympathy and affection. Friendship becomes, so to say, a sphere of its own, with its own values and rules. "Only with impersonal markets in products and services does a parallel system of personal relations emerge whose ethic excludes exchange and utility" (Silver, 1990: p. 1494).

Consequences in contemporary sociology: Giddens and Beck

In contemporary debates, the theories of Anthony Giddens, especially his concept of "the pure relationship", have been very influential. Giddens maintains that community is still "alive and well" under the conditions of late modernity, but that its forms have changed. A "decline of community" thesis is correct as far as it relates to communities of place and kinship. On the other hand, the communities of friendship and sexual intimacy have become more important as a means of stabilising social ties (Giddens, 1990). He maintains that it is simply not correct that social life under modernity is characterised by impersonality. Under the conditions of modernity, personal relations have become more intimate, an intimacy made possible by the increased level of privacy. "Privacy makes possible the psychic satisfactions that the achievement of intimacy has to offer" (Giddens, 1991: p. 94).

But there are also problems. Relatively enduring sexual relations, marriages and friendships have to an increasing extent become "pure relationships". This is a part of the differentiation process. Marriage, to take one example, becomes more and more a sphere of its own. It is no longer, as in premodern times, a contract between clans or families, or, as in early modern times, based on a clear division of labour between the sexes. It has become a pure relationship, i.e. without any other function than simply being a relationship. It is "...not anchored in external conditions of social and economic life - it is, as it were, free-floating" (Giddens, 1991: p. 89). The relationship only exists for its own sake. This applies even more so to friendships.

The commitment of the parties is what replaces the external anchors, but commitment is hard to build because: "It stands in uneasy connection with the reflexivity that is equally central to how the relationship is ordered" (Giddens, 1991: p. 93). Pure relationships are therefore a mixed blessing. They offer the opportunity of developing trust, intimacy, and a stable and positive self-identity. On the other hand they are also very demanding. The creation of trust presupposes the ability to be open, self-revealing and authentic. There is a tension between the commitment that is necessary to uphold the relationship and the knowledge that, at least in principle, the relationship can be broken by either party at any time.

Ulrich Beck is concerned with the consequences of individualisation. On the negative side, the individuals are separated from traditional support networks (family or neighbourhood), and also loose supplementary sources of income (part-time farming). While networks may become larger and more varied than before, they probably cannot replace "...the identity-forming power of a stable primary relationship". The problems of romantic love in the second modernity are an important theme. The loss of belonging that modernity brings is reflected in the idealisations of romantic love: "Not God, not priests, not class, nor neighbours, well at least You. And the size of the You is the inverted emptiness that otherwise prevails" (Beck, 1992: p. 114). Life in the second modernity forces the individual to concentrate on his or her personal interests, particularly in relation to the labour market: having an education, finding a job, making a career. This makes it more difficult to share one's life with another person. There is a "...*contradiction between the demands of the labor market and the demands of relationships* of whatever kind..." (Beck and Beck-Gernsheim, 1995: p. 6, italics in original). A couple is also confronted with an increasing amount of complex choices, which raises the chance of conflict. In a de-traditionalised and reflexive world, everything has to be decided on. So love has simultaneously become more important and more difficult to sustain.

In a later book, it is emphasized that individualisation is not the same as more egoism and a "me-first" society. Individualisation necessitates social sensitivity. "In fact, living in a highly individualized culture means you have to be socially sensible and be able to relate to others and to obligate your self, in order to manage and to organize your everyday life" (interview with U. Beck in Beck and Beck-Gernsheim, 2002: p. 211). These viewpoints are reminiscent of the more optimistic perspectives voiced by Hage and Powers (1992).

The American tradition

In the American tradition, there is a long lineage of criticisms of, and worries about, the supposed decline of social attachments, from Charles H. Cooley at the beginning of the 20th century to the theories of "mass society" in the 1950s and the very influential "decline of social capital" debate during the last years (Putnam, 2000). The mass society theorists saw the characteristics of modernity as a destructive force in relation to the strong group ties of church, clan, guild and local neighbourhood (Thomson, 2005). A society without these strong groups was characterised as a mass society, a society that generated feelings of meaninglessness. "Acting without goals, the man in the mass society just feels pointless" (Mills, 1956, cited in Thomson, 2005: p. 429). Thomson (2005) sees a fear of excessive individualism as the underlying theme in both the mass society theory and the theory of a decline of social capital. There are also differences, as can be seen in the kind of psychological phenomena the theories put to the fore. While the mass society theorists were concerned with meaninglessness and the wider concept of alienation, Putnam and other social capital theorists are primarily concerned with the decline of trust.

Social capital is an ambiguous concept in the work of Putnam (2000). First and foremost his interest lies in civic engagement. In his account of what "killed civic engagement", he does not draw to any large extent on theories of modernity. He places the greatest blame on two factors: generational change and the effect of electronic entertainment, above all television. Generational change is the gradual replacement of the "long civic generation", born in the first half of the 20th century, with less civic-minded generations. Private, informal socialising has been particularly affected by the spread of

electronic entertainment. The effects of television and of generational succession are "...in some respects opposite sides of the same coin"; the long civic generation was the last to grow up without television (Putnam, 2000: p. 272). The television revolution leads to a more home-centred life. Another, but less important factor is the increased pressures of time and money. The growth in two-career families has had a "visible but quite modest" role to play in the erosion of social capital (Putnam, 2000: p. 202). Lastly, he points to the negative effects of sprawl and more time spent commuting.

There are few studies with a truly optimistic perspective, a perspective that celebrates the new possibilities of the modern or high modern condition. In the American context, a relatively optimistic account can be found in the work of Hage and Powers (1992). According to these authors, social relations in post-industrial society will become more intimate and affective. They see knowledge growth as the key engine of change, in the form of education and new technologies (automation). Automation removes many of the routine and repetitive jobs of the industrial era. The jobs that are left are increasingly non-routine and require mental activity, information-gathering and problemsolving rather than physical activity and transformation of material objects. Social roles are becoming more complex. *Complexification*, rather than rationalisation, is the main pattern of social change in post-industrial society. While simplification and routinisation of tasks are characteristic of the rationalization process, complexification is the opposite process. Less routinised activities are added to existing roles. Family life is also transformed. As in the sphere of work, routine household work has been removed or made less time-consuming by automation (microwave ovens, dishwashers etc). This contributes to a radical redefinition of family roles. The focus of family members shift from the performance of routine physical tasks to more complicated interpersonal tasks, like "listening" and giving "quality time". What it means to be a good spouse or parent shifts accordingly. Both in work and family life, "team work" is more prevalent. One example is parenting, which often involves the former spouse and his/her family, members of the extended family and also professional helpers like daycare personnel or teachers. Social roles become more complex and less routine, and are less controlled by conformity to external rules. Interpersonal commitment in roles is more important.

However, they also see serious problems, caused by the transformation process. The necessity of constant role redefinitions is a fundamental problem in the post-industrial setting. The complexification of roles requires that people are more adaptable and flexible. There is an absence of clear role prescriptions, which increases the risk of role stress and conflict. Social interaction skills, in particular good listening skills, become more important. Increasing divorce rates are seen as a result of many individuals being unable to redefine their roles because of a lack of necessary communication skills. With time, as better interaction skills are developed and people are more comfortable with ambiguity, there will be a more socially satisfying life (Hage and Powers, 1992: p. 134). Accordingly, they predict a future fall in the incidence of divorce (Hage and Powers, 1992: p. 217).

The influence of the new information technologies

How are the new information technologies, especially the tremendous increase in the use of mobile phones and the Internet, related to trends of social integration? According to Barry Wellman's theory of networked individualism, the use of the Internet technologies reinforces changes in social networks that have been underway since the industrial revolution: first, relationships are both local and non-local, and e-mail contact makes it easier to maintain non-local relationships. Second, persons are not connected to one densely knit community; instead people are connected to multiple small groups. Personal networks tend to be sparsely knit. "In this sense, every individual has her own personal community, because it is rare for two people to have exactly the same set of relationships" (Boase and Wellman, 2006: p. 718). The Internet also strengthens this characteristic, since CMC (computer mediated communication) is often carried out as a one-on-one exchange, without the knowledge of other persons in the network. Third, according to Wellman many relationships are transitory in nature. People will form many sets of relationships throughout their lives, especially in connection with changes in their working life career. Boase and Wellman theorise that CMC might be useful in ending relationships because it is emotionally easier to ignore people online than offline. On the other hand,

the Internet is also useful for maintaining contact when people move, and for meeting new people. CMC helps in maintaining a large and diverse network, containing both strong and weak ties. Meetings can be arranged in a convenient and little time-consuming way, and people can stay in touch with their weak tie relationships.

We should therefore expect the size of the social networks to increase with increasing use of CMC and mobile phones. The American Social Ties Survey⁵ found that Internet users had somewhat larger social networks than non-users (Boase et al., 2006: p. 9). Boase and Wellman are mainly addressing the impact of the Internet, but mobile phones and the use of SMS should have much the same impact, for example by further reducing the role of physical proximity. Research on how young people are affected by the use of mobile phones emphasises the increase in the total amount of social interaction. "Thresholds - regarding space, time, and content - for communicative action are reduced" (Thulin and Vilhelmson, 2007: p. 235), thereby leading to an intensification of social interaction.

Not everyone agrees on this rather positive outlook on the social consequences of the new information technologies. Some maintain that there is a danger of "balkanisation" of social relations; the intensity of communication in the "inner circle" becomes so inviting that there is no longer any time or energy left for participating in other social interactions (discussed by Arminen, 2007). This would be in direct opposition to the "networked individualism" thesis of Wellman, where exactly the opposite seems to be the case, i.e. an enlargement and not a narrowing of social networks. Only further empirical studies will show which of these theories is best fitted to describe the social realities.

In general, there is little evidence of the Internet harming social relationships or detracting from face-to-face interaction. Internet use is associated with relatively high levels of contact with friends, but not with family (Boase and Wellman, 2006: p. 717). Longitudinal studies indicate that increase in Internet use is not related to changes of network size or time spent with the network (Franzen, 2003). The new information technologies seem to supplement, rather than replace, face-to-face interaction.

A study of changes in the social networks of youth (aged 13-19) in Norway from 1992 to 2002 (Hegna, 2005) is especially interesting in the context of the new communication technologies, since the decade from 1992 to 2002 saw an enormous growth in the use of mobile phones and the Internet in this age group. In 1992 there was probably almost no one that had access to mobile phones or the Internet, in contrast nearly everyone had access to a mobile phone in 2002, especially among youth between the ages of 16 and 19. Results seem to support the hypothesis of Wellman. There has been no decrease in the frequency of face-to-face friendship contacts. The share of youths agreeing with the sentence "I have many friends" rose significantly, indicating a larger network of friends. The pattern of social network contacts became more oriented towards friends, and less towards family. The boys report meeting friends more often in their home. At the same time, fewer of the young say that they have a best friend. This could imply that relations have become more superficial, or that their expectations concerning what a best friend is have changed. However, Norwegian youth both felt more accepted and somewhat less lonely in 2002 than 10 years earlier (see further discussion in chapter 8).

3.4 Perspectives on the subjective dimension

There are few perspectives that explicitly discuss the subjective dimensions of social integration in the light of theories of modernity and social change. I have mentioned that Simmel saw loneliness as the backside of the freedom enjoyed by persons living in the big cities. The theory of Hage and Powers seems to lead to the conclusion that emotional bonds are becoming stronger in post-industrial society,

⁵ The response rate for this survey was only 35 percent

or at least that they will be, after a period of transition. This could presumably also lead to less loneliness, but this is not discussed. Others see a possible divergence between the actual patterns of community/integration, and how these are experienced. Barry Wellman (1979), on the basis of his study of social life in Toronto, points to a possible dissonance between the actual existence of intimate ties and the feelings of "community lost". "Rather than an unambiguous membership in a single, almost concrete, solidary community, East Yorkers' lives are now divided among multiple networks...no one solidarity can readily make or enforce general claims on a member" (Wellman, 1979: pp. 1226-27). Community is not "lost" in the metropolis, first and foremost it has been "liberated". Most people have strong primary bonds, but they are not tied together in one dense, collective community. There is a split between the social worlds of the working place, the relatives and the local community/neighbours. The circle of intimates is loosely bounded, and the density is relatively low. A similar point is made by other researchers studying urban life. It is not the breakdown of community, but rather the build up of plural communities and multiple subcultures that characterises urban life (Fischer, 1982, 1995).

Calhoun (1991, 1992) points to the divergence between the social integration of "locally compact communities", with their dense and multiplex networks, and the increasingly non-local coordination of actions in modern societies. Social integration in modernity is extended to an ever-larger scale, through reliance on indirect social relationships. In the modern era there is a sharpening of the split between the world of direct interpersonal relationships and the mode of organisation and integration of large-scale social systems (Calhoun, 1991: p. 96). This poses some existential challenges for the individual, for instance to establish a sense of place and social context, and to understand the system. Again, community is not lost; direct social relationships are not necessarily diminished in quantity or quality, but these direct, face-to-face relationships do not give the same basis as before for understanding the world and "feeling at home".

4. PERSPECTIVES ON CONSEQUENCES OF SOCIAL INTEGRATION FOR MENTAL HEALTH

4.1 Introduction

In this chapter I will concentrate on how social integration affects mental health, particularly anxiety and depression, and the behavioural problems associated with mental health (alcoholism, drug abuse and suicidal behaviour). These problems are correlated with the different dimensions of social integration, including loneliness. Loneliness is often considered to be one of many indicators of depression, and is included in several depression measurement scales (like the Center for Epidemiological Studies' Depression Scale (CES-D) and the depression component of HSCL, see Mirowsky and Ross, 2003; Derogatis et al., 1974). I will start with the seminal work of Durkheim, followed by a discussion of some of the modern day extensions of his work, not least in the rapidly growing field of "sociology of emotions", before turning to other approaches.

4.2 Durkheim and his legacy

Durkheim and the sociology of suicidal behaviour

Two of Durkheim's four types of suicide are particularly relevant for the understanding of suicide rates and other forms of human suffering in modern societies: the egoistic suicide, due to societal groups' lack of integration, and the anomic suicide, attributed to the societal incapacity to regulate behaviour (Durkheim, [1897] 2000; Rossow, 1999).

Berk (2006) has tried to systematise the mechanisms involved in the egoistic form of suicide. The first and foremost mechanism is that low integration, in the form of few common beliefs and practices in a group, leads to feelings of meaninglessness or purposelessness in individuals, which then cause them to take their lives. Individuals need a purpose outside their own existence. Another key mechanism is the collective evaluation of existence that evolves in groups, i.e. collective currents of depression and disillusionment leading to feelings of meaninglessness. Additionally, two secondary mechanisms can be identified: intensification of misfortunes and a weakening of restraints. First, when the individual has no purpose outside her existence, the experience of individual misfortunes is intensified. Also, personal misfortunes are intensified when group support is lacking (this is an early version of the "buffer hypothesis", which I will return to later). Second, integration is a restraining force upon the individuals' desire to kill themselves. Thus, the lack of integration can produce suicidal impulses on its own, intensify already existing impulses or merely restrain individuals from acting on existing impulses. All these three possibilities are found in the work of Durkheim, but not systematically separated (Berk, 2006). A third mechanism, that low integration leads to painful feelings of isolation and loneliness, which then leads to suicide, has often been attributed to Durkheim, but is actually not given much weight by Durkheim himself. He is more concerned with the character of group life than with individual-level social isolation.

The main mechanism behind anomic suicides is that when our needs and desires are not regulated by society, they become a source of suffering, since most of our needs "...are unlimited so far as they depend on the individual alone" (Durkheim, [1897] 2000: p. 247). The relation between the concepts of integration and regulation has been the subject of much controversy. Durkheim acknowledged that they were closely related: "Both spring from society's insufficient presence in individuals" (Durkheim, [1897] 2000: p. 258), but also maintained that they were independent of each other. In terms of social environment, the egoistic suicide was mainly a phenomenon among intellectual careers, "the world of thought", while anomic suicides had its principal field in the world of industry and commerce.

It is easy to see that many forms of social participation, for instance marriage, can have integrating and regulating effects at the same time. For Durkheim, however, marriage in itself did not protect against the egoistic form of suicide, because marriage included only two persons and was too short-lived. But marriage protects against one form of anomie, the sexual anomie. Sexual possibilities are closed down to one person, giving sexual feelings a definite limit (Mastekaasa, 1994). For Durkheim the presence of children was more important than marriage in itself.

Applications of Durkheim

Durkheim has had an enormous influence on the study of health and social relations. In this section I will briefly refer to recent attempts at incorporating the ideas of Durkheim in survey research, before I go into theoretical perspectives (ritual theory, multiple identity theory) that explicitly build on, and extend, the work of Durkheim.

In an interesting study of Icelandic high school students (Thorlindsson and Bjarnason, 1998), family integration and regulation were measured through survey questions on the extent of different kinds of social support and parental rule-setting/monitoring. The state of anomie was operationalised using questions such as: "Everything is relative, and there just aren't any definite rules to live by". Suicidality was measured as self-reported suicidal behaviour and thoughts. The results confirmed the

prime importance of social integration. Youth that were strongly integrated into their families were less suicidal and less exposed to anomie than others. Family integration had a direct effect on suicidality, and indirect effects through the effects on anomie and suicidal suggestion (i.e. closeness to victims of suicidal behaviour). Parental regulation, on the other hand, did not have a direct effect on anomie and suicidality, but was indirectly linked to suicidality via its effect on suicidal suggestion. Both integration and regulation seem to reduce youth's contact with suicidal individuals, or the negative effects of such contact (Thorlindsson and Bjarnason, 1998: pp. 107-108). In a similar survey of delinquency among Icelandic adolescents, the independent effects of anomie and integration were confirmed (Thorlindsson and Bernburg, 2004). The experience of anomie partly accounted for the effects of social integration. Interestingly, this multi-level study also points to the importance of community-level social integration for adolescent delinquency. Youths belonging to urban communities with a high proportion of two-parent households, and with a high level of religious activity, report less delinquency than others, net of whether the adolescents themselves are religiously active or live in two-person households. Multi-level models are important in a Durkheimian context, since Durkheim's theory is essentially a theory about processes on the group level affecting group-level and individual-level outcomes.

These studies show the potential fruitfulness of incorporating the concepts of integration and anomie/regulation in empirical research on suicidal and other forms of deviant behaviour. A problem with these studies is, however, that data are cross-sectional. An example illustrates the problem of interpretation following from this: the finding that parental rule-setting does not influence suicidality could be interpreted as a result of suicidality influencing parental rule-setting. If parents sense that their sons or daughters are having problems, quite naturally their efforts at control will increase. If there is a genuine, negative effect of parental rule-setting and monitoring, this could be obscured by the cross-sectional nature of the data.

The correlation between anomie and integration is also confirmed by other research. Socially isolated individuals more often than others find it difficult to "separate right from wrong" (Travis, 1993). High interaction frequencies within groups are associated with less ambiguous and more widely shared norms (Homans, 1966: p. 333).

4.3 Extensions of Durkheim 1: Interaction ritual theory

Basic elements in the interaction ritual theory of Randall Collins were described in chapter 2. According to Collins, there are four main outcomes of the interaction ritual, to the extent that the ritual is "successful":

1. Group solidarity, a feeling of membership
2. Emotional energy (EE) in the individual, a feeling of confidence and strength
3. Symbols that represent the group, similar to Durkheim's "sacred objects" (such as a wedding ring or the national flag)
4. Feelings of morality, the sense of rightness in adhering to the group (cf. the correlation between anomie and integration)

The low end of EE is "...depression, lack of initiative, and negative self-feelings...(...). Low emotional energy is a lack of Durkheimian solidarity. One is not attracted to the group; one is drained or depressed by it; one wants to avoid it" (Collins, 2004: p. 108).

Two basic forms of rituals are power and status rituals. In power rituals the focus is on the vertical dimension of interaction, the process of giving and taking orders. Status is the horizontal dimension, the dimension of inclusion or exclusion, membership or non-membership. Every interaction is producing both status membership effects and power effects, although the power effects might be zero

if there is no order-giving or order-taking in the situation (Collins, 2004: p. 115). Emotional energy tends to cumulate over time, either positively or negatively, as a consequence of the characteristics of power and status rituals. The results of the last interaction, in terms of emotions and symbols, become inputs for the next interaction, and so on. In power rituals order-givers maintain or gain EE, while order-takers lose it; there is an especially high risk of depression if the order-taker experiences a strong degree of being controlled by the others. In status rituals, the popular persons, those being at the centre of attention, gain EE, while persons experiencing marginality or exclusion lose it. Collins suggests that: "Over the long run...failure of membership in a group ritual brings a degree of depression commensurate with the degree of social exclusion" (Collins, 2004: p. 120).

The IR theory offers a wide range of very interesting hypotheses, but it has not been widely tested, empirically. Indeed, one can ask whether it is possible to have a real empirical test of such a complex and many-faceted theory. The overall theory may be best suited as a framework of interpretation (Turner and Stets, 2005: p. 87). Collins cites research that substantiates his claim that rhythmic synchronisation in conversations (of utterances, bodily movements etc) is correlated with solidarity (liking, feelings of rapport, see Collins, 2004: p. 76). The finding by Emmers-Sommer (2004), that smoothness of conversation is associated with relational satisfaction while depth of conversation (intimacy) is not, also supports an aspect of the theory. One of the theoretical shortcomings is that little weight is placed on the concepts of self and identity. It is unclear how the dynamics of self are connected to emotional energy (Turner and Stets, 2005: p. 299).

His interpretation of the sexual interaction ritual (cf. chapter 2) is interesting, and seemingly in contrast to Durkheim, who saw the two-person group of husband and wife as too small to produce strong feelings of solidarity. In sexual intercourse, there are all the ingredients of a Durkheimian ritual, feeding back on each other and sustaining rhythmic synchronisation and intensification. Collins emphasises that "...sex can produce the strongest of all forms of solidarity", because it is so far removed from normal social interaction, "...in which persons barely touch each other" (Collins, 2004: p. 234). Sex is not only pleasurable in and of itself, it also symbolises the strength and value of the relationship.

4.4 Extensions of Durkheim 2: Multiple roles, global meaning and shame

An important addition to the sociological framework for understanding the mental health consequences of social integration are the concepts of "identity accumulation" and "multiple identities" (Thoits, 1983). The work of Peggy Thoits is based on the symbolic interactionist perspective, originating in the theories of George Herbert Mead, who emphasised the importance of social interaction processes for self-conceptions. One can say that she brought the self into Durkheimian integration theory (Thorlindsson and Bjarnason, 1998). Social integration at the interpersonal level can be understood as filling certain role requirements, such as those inherent in the roles of husband and colleague. These role requirements are a foundation for identity and self-esteem. Filling roles "...give purpose, meaning, direction and guidance to one's life. The greater the number of identities held, the stronger one's sense of meaningful, guided existence" (Thoits, 1983: p. 175). An important supposition is that the more a person identifies with a certain role, the stronger the experience of purpose and meaning. The degree of identification is influenced by cultural value systems. On the other hand, while strong identification implies strong meaning, stressors that harm or threaten the most valued identities of a person should also be more psychologically harmful than other stressors (Thoits, 1999). A person that identifies strongly with his male breadwinner role has no problems finding meaning and purpose in life, but is vulnerable and can react more negatively than others to the threat of unemployment (the identity-relevant stress hypothesis). However, empirical support for the identity-relevant stress hypothesis has been mixed (Thoits, 1999: pp. 353-355).

The role accumulation hypothesis has been criticised. Only counting the number of roles, without evaluating the differences of content, is problematic (Mirowsky and Ross, 2003: p. 220). Some roles may even be health damaging, like the roles of being a widower or a prisoner. In the original formulation (Thoits, 1983) it was unclear why some social positions were counted as roles, and others not. The non-employed lacked the role of employment, but could fill other roles instead, such as the role of being a homemaker or a retired person. A more fruitful approach may be the one demonstrated by Burton (1998), who shows how the filling of *certain* roles (marriage, parenthood, employment) has a positive influence on a global sense of meaning in life, and that this sense of meaning contributes strongly to emotional well-being (in a cross-sectional study). The concept of global integrative meaning was drawn from the work of Durkheim, and was defined as "...an overall belief that one has a purpose and reason for continued existence..." (Burton, 1998: p. 202). A related finding is reported by Taylor and Turner (2001). Persons who scored high on a perceived "mattering to others"-scale were less depressed than persons scoring low on the mattering scale. Changes in mattering over time were predictive of changes in depression among women.

Another symbolic interactionist approach to the emotional consequences of social integration can be found in the work of Thomas Scheff (Scheff, 2000, 2001, 2007; Turner and Stets, 2005). For Scheff, shame is the feeling that arises when there is a threat to the social bond. As such, it is the most social of the basic emotions, "...shame is the emotion that Durkheim should have named as the social emotion" (Scheff, 2000: p. 97). It has a wide range of cognates and variants, from intense feelings of humiliation to shyness and modesty, and is also involved in feelings of low self-esteem or self-respect (Scheff, 2000, 2001). If shame is repressed, it can lead to anger. A shame-anger cycle is potentially very disruptive of social bonds.

There has been no systematic attempt at testing his theory, but Scheff has illustrated elements of his theory with data that are often gathered for other purposes (reviewed in Turner and Stets, 2005: pp. 157-164). In one article, the theory is applied to depression (Scheff, 2001). Scheff observed all intake interviews (85) of male patients in an English mental hospital during 5 months in 1965. He found that none of the depressed men had even one secure bond. Those who were married were at odds with their wives, and the others were widowed, divorced, or never married. Those who had jobs did not find them fulfilling. He interprets the bodily expressions of the men as indicative of shame: overly soft speech, lack of eye contact, slowness of movement etc. Only when they recounted memories of activities during the Second World War, when they had memories of solidarity, did their mood lift. They sat up in their chairs, had more eye contact, raised their voice and spoke more fluently. In the perspective of IR theory, there was a release of emotional energy, "stored" in the form of memories from earlier, successful interaction rituals. The theory of Scheff is cited approvingly by Collins (2004) as a valuable complement to IR theory. From the point of view of IR theory, shame is a particular form of low emotional energy (Collins, 2004: p. 120).

Scheff acknowledges that his use of the 1965 interviews is merely illustrative, and not a test of the theory. As he points out, the evidence of shame could at least partly be a result of being a psychiatric patient and in an inferior position during the interviews.

The concept of shame has been used in empirical research on the consequences of unemployment, with reference to Scheff. Persons who have many shame-inducing experiences during unemployment, who have been looked down on in some way because of their unemployment, are more negatively affected; they are more tormented by the status of unemployment (Jönsson and Starrin, 2000).

The importance of self-esteem or self-worth for psychological and behavioural problems has been shown in a number of studies (Thoits, 1999: pp. 356-357, see also chapter 4.7). Positive self-worth is one of the foundations of meaning (Baumeister, 1991). In Norway poor self-worth is a risk factor for suicide attempts among adolescents (Wichstrøm, 2000).

4.5 Other approaches in the sociology of emotions

There are a number of competing theories in the field of sociology of emotions. While the theory of Collins (2004) is the foremost proponent of ritual theorising, Scheff represents a strand of symbolic interactionist theorising. Other approaches are dramaturgical and cultural perspectives, exchange perspectives, structural perspectives and evolutionary perspectives (Turner and Stets, 2005). There are also many variants of theories within these broad groups of perspectives. I have given weight to perspectives that can be seen to build on and refine Durkheim's insights, and that directly address the emotions that are most relevant for mental health: anxiety and depression. An early version of a structural theory of emotions, developed by Kemper, saw depression and anxiety as a result of certain characteristics of social structures. According to Kemper (1978), the most important premise for the sociology of emotions is that emotions to a large extent are the outcome of social relationships. Relationships have two dimensions, the degree of control of one actor over another (power) and the degree of positive social relations (status). Kemper links the feelings of shame and depression to characteristics of the status dimension of social relationships (quite similar to Collins and Scheff). He sees depression as the result of a deficit of status, i.e. too little reward and gratification given voluntarily by other persons. If the actor sees the self as responsible for the deficit (self-blame), the result is despair, a sense of worthlessness and, ultimately, suicide. If others are seen as responsible, the result is anger and hostility. In either case, these reactions heighten the risk of a further deficit of status. Shame is the emotion experienced when an actor acquires or claims an excess of status, he/she gets more than deserved. Guilt and anxiety are linked to the power dimension of relationships, with guilt resulting from a felt excess of power, and anxiety to a felt deficit of power.

The theory of power and status dynamics has later been developed further and refined, both by Kemper and others (Turner and Stets, 2005: pp. 218-260). As mentioned earlier, the dimensions of power and status are also an important part of IR theory (Collins, 2004).

4.6 Alienation and powerlessness

The concept of alienation, as it is used in sociology, originated in the work of Karl Marx, analysing the worker's condition in a capitalist society. Theories of the "Entfremdung" of man was an essential part of the early writings of Marx (Israel, 1969). In modern sociological thinking, Melvin Seeman was instrumental in clarifying the concept and making it more useful for empirical research (Seeman, 1959). Studies of variations in psychological distress have often utilised the concept of alienation, referring to Seeman. He described five major types of alienation: powerlessness, self-estrangement, isolation, meaninglessness, and normlessness. Seeman saw alienation in the form of powerlessness as the notion that was closest to the Marxian origins of the concept. He defined it in psychological terms as "...the expectancy or probability held by the individual that his own behavior cannot determine the occurrence of the outcomes, or reinforcements, he seeks" (Seeman, 1959: p. 784). Mirowsky and Ross (2003) argue that subjective alienation is the primary explanation for social variations in psychological distress. Powerlessness, the lack of personal control, is perhaps the most decisive form of subjective alienation, in terms of consequences for mental health. In general terms, alienation is any form of detachment or separation from oneself or others. "Powerlessness is a sense of detachment from effective influence over one's life..." (Mirowsky and Ross, 2003: p. 213). There are a number of related concepts in sociology and psychology, like "locus of control", "self-efficacy", "mastery" and "learned helplessness". Although defined as a psychological variable, perceived powerlessness is seen as an outcome of the repeated experience of objective powerlessness. "Belief in external control is the learned and generalized expectation that one has little control over meaningful events and circumstances in one's life" (Mirowsky and Ross, 2003: p. 180). Low sense of control robs a person of confidence and hope, and diminishes the motivation for active problem-solving.

The correlation between low perceived control over own life and psychological distress, particularly

depression, is one of the most established findings in social psychology. Although depression has been shown to influence perceived control, the causal influence is mostly from personal control to depression (see studies cited in Mirowsky and Ross, 2003: p. 197).

Feelings of powerlessness are primarily linked to the individual's standing in the vertical social order, to the system of stratification and work. The review of findings made by Mirowsky and Ross clearly contradicts the thesis of Kemper (1978, see above), who saw inequalities of power as conducive of anxiety, and not of depression. However, low sense of control has also been linked to aspects of social integration, like the status of unemployment or being a homemaker (Mirowsky and Ross, 2003: pp. 185, 190).

Self-estrangement was defined by Seeman as a loss of intrinsic meaning or pride in work. Work is only of instrumental value for the worker. Isolation was conceptualised as a kind of "cultural estrangement", a lack of commitment to prevailing cultural values. A more common definition of isolation today is a lack of social support, a sense of not being cared for and loved, and not being a part of a network of communication and obligation (Mirowsky and Ross, 2003: p. 213, cf. Cobb, 1976). The fourth form of alienation, meaninglessness, refers to a lack of understanding of the events that the individual participates in, making it difficult to predict the outcome of actions. Finally, normlessness was derived from Durkheim's concept of anomie. However, the actual definition was more inspired by Merton than by Durkheim. It was seen as the belief that "socially unapproved behaviors" were required to achieve one's goals (the operationalisation of anomie by Thorlindsson and Bjarnason (1998) and Thorlindsson and Bernburg (2004) seems to be closer to the original intentions of Durkheim).

Considering these aspects of alienation, the research interest has mostly been devoted to the effects of powerlessness and social isolation (lack of support); the importance of these factors for psychological distress has been firmly established (I will look into the effects of social support in more detail later). The evidence suggesting an effect of the other dimensions of alienation is more scattered and mixed (see the review in Mirowsky and Ross, 2003). However, as discussed above, there is some evidence that links a global sense of meaning to less distress (Burton, 1998, among others), and that shows how the concept of anomie can be useful in empirical research (Thorlindsson and Bjarnason, 1998).

Perceived powerlessness can explain some of the detrimental consequences of social disintegration (particularly in relation to employment). Social support can also enhance the sense of control, through the resources that are provided, just as a strong sense of control can supply a person with the necessary confidence and motivation to approach others. Persons with a high sense of control usually have more social support than others. A number of research findings indicate that social support enhances self-efficacy (cited in Berkman et al., 2000: pp. 850-851). Generally, however, social support and control seem to function as alternative resources in dealing with stress. Social support is an especially important resource for those who feel powerless, and vice versa. Persons who are low in perceived power, the poor and the uneducated, are particularly dependent on social support (Mirowsky and Ross, 2003: pp. 203-204).

4.7 The stress perspective and the effects of social support, undermining and control

The theory of stress and stress adjustment has for long been the dominant perspective in sociology on the social antecedents of mental disorder. In its simplest form, the theory sees psychological distress as a consequence of persons a) having to confront any form of environmental demands (challenges, threats, loss) and b) having a deficit of relevant coping resources or abilities, leading the persons to be overwhelmed by the external demands (Thoits, 1999: p. 346). Relative to social integration/isolation,

loosing a social bond, through divorce or otherwise, can both be seen as a disruptive stressor in itself, and as a loss of an important coping resource (social support).

Pearlin et al. (1981) introduced the notion of the "stress process", seeing stress adjustment as a social and psychological process involving a number of interrelated elements: the sources of stress (the stressors), mediating resources (coping, self-esteem, mastery and social support) and the manifestations of stress, such as depression. The concept of stress originated with the work of the American physiologist Hans Selye. In laboratory experiments he discovered that when rats were injected with different forms of toxins, the injections always led to the same syndrome of biological changes: a non-specific response consisting of enlargement of the adrenal cortex, shrinking of the thymus and lymph nodes, and the development of ulcers in the stomach and duodenum. He termed the physiological reactions as stress, caused by the external stressors (Selye, [1974] 1978).

In sociological and psychological studies of stress, the stressors are usually of two kinds: life events and chronic, repeated strain⁶. Life events has, at least in principle, an identifiable point in time in which it occurred; examples are different forms of loss, such as the loss of a job (unemployment), loss of a child and loss of a spouse, through death or divorce. Unwanted and unscheduled events are the most distressful (Pearlin, 1999: p. 401). Chronic strain is often associated with the enactment of social roles, aptly called role strains, and has many forms, including conflict-ridden relations with persons in the role set and problems in reconciling the demands of multiple roles. Another distinction is between primary and secondary stressors, based on the temporal order of stressors in the stress process. An example of a primary stressor is job loss, which is sometimes followed by economic problems, a secondary stressor. Spill-over effects from one role to another is a prime cause of secondary stressors. Naturally, with the occurrence of secondary stressors, the risk of psychological distress increases.

Moderating resources are resources that can be used to help the individual adapt to the challenges, threats or losses posed by the stressors. For example, the availability of social support can be used to stop primary stressors from causing secondary stressors, as when an unemployed person receives economic help from wealthy relatives. Other moderating resources are coping style, self-esteem and perceived powerlessness. Coping refers to "...any response to external life strains that serves to prevent, avoid or control emotional distress" (Pearlin and Schooler, 1978: p. 3). A person can try to cope by changing the situation from which stressors spring, by controlling the psychological meaning of stressors and/or by controlling the stress reaction, reducing the intensity of distress. Depending on type of stressor and context, some forms of coping are more effective than others. Pearlin and Schooler (1978) found that coping was especially efficacious in moderating stressors in close interpersonal relationships. Low self-esteem is one of the potentially mediating factors in the stress process; stressors decrease feelings of self-worth, which leads to psychological distress. But self-esteem is also a powerful moderating influence; a number of studies show that when self-esteem is high, the existence of stressors is less likely to cause distress than when self-esteem is low (reviewed by Thoits, 1999: p. 358).

The outcomes of the stress process, if the demands posed by the stressors outweigh the resources available for coping, are some form of distress, psychological or physiological, or a behavioural problem like alcohol and drug abuse. The outcome at one point in time can influence the stock of moderating resources at a later time. Depression can have a detrimental effect on coping resources, both in relation to social support, perceived powerlessness and self-esteem. Research shows, to take one example, that persons with more symptoms of depression are more negative and aggressive in their behaviour towards their spouse. There is a vicious circle between depressive symptoms and marital difficulties (see research cited in Kline et al., 2006: p. 451; Jones et al., 2006: p. 319).

The stress process must be understood in relation to the wider, societal context. The social and economic statuses of people are potentially connected to every component in the stress process, and

⁶ The description of the stress process here is primarily based on Pearlin (1999)

shape the context of the process, what kinds of stressors people face and their moderating resources (Pearlin, 1999).

A closer look at the effects of social support⁷

Social support is an aspect of moderating influences that is directly related to social integration. A number of studies find that social support buffers the potentially negative effect of stressors. In a longitudinal study (Pearlin et al., 1981), social support was found to buffer the effect of disruptive job events on depression by protecting the self-concept (sense of control, self-esteem). Job losers with high levels of social support were more able to retain a positive self-concept than job losers with low levels of support. Social support was measured as perceived emotional support from friends, relatives and/or spouse. Perceived social support, often operationalised as having someone to talk to about anything and turn to for support and understanding, has been found to reduce distress in many studies (Ross and Mirowsky, 1989; Turner and Marino, 1994; Mirowsky and Ross, 2003: pp. 216-219; Bolger et al., 2000). In their classic study, Brown and Harris (1978) showed that if a woman did not have an intimate tie, a husband or boyfriend that she could trust and confide in, there was an increased risk of depression if she faced a serious event or difficulty. For women without an intimate tie, employment served as a stress buffer (Brown and Harris, 1978: pp. 278-279).

Far from all studies find that social support buffers the effect of stressors, however. This has been a hotly debated topic. In their review article, Turner and Turner (1999: p. 307) suggest that the available evidence shows that social support matters for psychological well-being in general, regardless of stress exposure, but that social support matters more when the level of stress exposure is high. They also note that most of the studies of the link between support and distress have been cross-sectional, implying the problem of separating causation from selection. However, the accumulated evidence from a diverse set of sources, including laboratory studies, intervention studies and panel studies, "...appears to constitute a compelling case for the causal impact of social support" (Turner and Turner, 1999: p. 312).

A surprising finding in many studies is that the the actual receipt of support does not reduce distress. The experience of having someone to talk to is important, but actually talking to others about problems does not seem to be beneficial (Ross and Mirowsky, 1989). However, there is reason to believe that the positive effects of enacted support are underestimated, for several reasons. Some important forms of support are invisible for the recipient. In an intriguing study, both members of a couple filled out a diary over a 35-day period (Bolger et al., 2000). In this period, one of the members in the couple was preparing to undergo an important and stressful, educational examination. It turned out that the most effective form of emotional support was invisible for the recipient, i.e. the partner said he/she provided support, but it went unnoticed by the recipient. In this situation, depression tended to decrease over time. In contrast, when the recipients reported receiving social support in a high-stress phase, their depression tended to increase. The explanation for this phenomenon is not clear. It could be that the receipt of help challenges the recipients' sense of personal competence, undermines the reciprocity of the relationship or serves to increase the recipients' focus on their negative mood. This study reinforces one of the points made by Pearlin (1999), underlining how unfortunate it is that the donors of support are absent from research on social support. Social support is an interactive process involving at least two persons, a fact that is poorly captured by the heavy reliance on cross-sectional surveys covering only one of the parties involved.

The impact of marriage/having a partner on depression is partly mediated by social support (Ross and Mirowsky, 1989; Turner and Marino, 1994; Lin et al., 1999). Also, persons with many social roles have more support than persons occupying few roles. According to one study, persons who lack both

⁷ Social support is a concept that is not exclusively tied to the stress perspective. For example, a lack of social support can also be seen as a form of alienation, as shown in chapter 4.6. However, since the research literature often describes social support as a coping resource, I have chosen to give a more thorough presentation of social support studies under this heading.

the partner role and the co-worker role have "dramatically" low levels of social support, while persons who occupy the maximum number of roles (relative, friend, co-worker and partner) have the highest social support score (Turner and Marino, 1994: p. 204).

While support from a spouse is often seen as the most important source of support, Horwitz et al. (1997), in their longitudinal study of young adults, found that support from friends and from spouse had an equally strong, negative effect on depression.

Social undermining and social control

In the last decade, the influence of social undermining and negative aspects of social integration has received increasing attention. These negative aspects have traditionally not been given much weight by the Durkheimian framework, although Durkheim acknowledged that individuals could be too strongly integrated or regulated (altruistic and fatalistic suicides). The concept of social undermining was introduced by Vinokur and Ryn (1993). There are now a number of studies showing that negative social interactions in close relationships have stronger effects on mental health than positive interactions (Vinokur and Ryn, 1993; Horwitz et al., 1997; Cranford, 2004; Bertera, 2005). In their longitudinal study of young adults, Horwitz et al. (1997) found that a problematic relationship with the spouse was considerably more predictive of depression than having a supportive relationship. What was the most important, however, was the balance between negative and supportive aspects. In another American, this time nationally representative study (age group 21-54), social negativity from spouse, relatives and friends were all independently associated with the number of anxiety and mood disorder episodes. Negativity from the spouse was the most important factor. Positive, supportive behaviours from spouse or friends were not associated with mental health; only positive support from relatives was negatively associated with the number of mood disorder episodes (Bertera, 2005). There is some evidence indicating that social undermining can induce stress exacerbation, the opposite effect of the stress buffering effect of social support (Cranford, 2004).

Social integration implies freedom to achieve valued goals, like love and support, but unavoidably also implies social control, constraints and regulations on behaviour. Depending on a number of factors, these regulations can be experienced either as support or as undermining. Social control can be direct, through the direct sanctioning of behaviour, or indirect, through shared values and norms, giving normative guidance (Umberson, 1987; Berkman et al., 2000). Some forms of social control undoubtedly have health enhancing effects, physically and mentally. Research shows that the roles of marriage and parenthood are related to less participation in health-compromising behaviours, like substance abuse and problem-related drinking (Umberson, 1987). These behaviours are both a short-term and long-term risk factor for suicide and mental health problems. Among men, marriage seems to function as a buffer against drinking more alcohol during unemployment (Mastekaasa, 1993). A dense, local network, where "everyone knows everyone", increase the possibilities for building effective norms and establishing an effective "security net" for children and youth (Coleman, 1990). Of course, what the health effects of social control are will depend on the specific values and norms that are promoted in the network.

Besides social support, undermining and control, *imitation of behaviour* is a fourth form of social influence that can have important consequences for health. Again, the kind of behaviour imitated determines the consequences. Imitation of suicidal behaviour is a particularly destructive form of imitation (Thorlindsson and Bjarnason, 1998).

4.8 Loneliness

Perspectives

Loneliness has received remarkably little attention in sociological attempts at theorising emotions, and also little attention in the sociology of mental health. The main reason for this is perhaps that

Loneliness is considered a symptom of depression, rather than an antecedent. A feeling of loneliness is one of the symptoms listed in several of the most commonly used depression scales in empirical research. In these scales, as in most single-item measures of loneliness, the words “lonely” or “loneliness” are used. Other approaches attempt to measure loneliness more indirectly, like the UCLA Loneliness Scale and the De Jong Gierveld Loneliness Scale. The UCLA Scale is the most frequently used of these, and measures to what degree the respondents feel connected and close to others (Miller et al., 2006: p. 435). Both a 20-items version, originally developed by Russell et al. (1980), and several shorter versions are in use. In the 4-item version, respondents are asked to indicate to what extent they agree with a set of 4 contentions, like “no one knows me really well” and “people are around me, but not with me” (Halvorsen, 2005: p. 52). The De Jong Gierveld Loneliness Scale was originally an 11-item scale, but recently a shortened, 6-item scale has been developed. The scale was made with Weiss’s distinction between emotional and social loneliness in mind (cf. chapter 2). Factor analysis has confirmed the two-factor structure of the scale (De Jong Gierveld and Van Tilburg, 2006: p. 590; Van Baarsen et al., 2001). Agreement with the items “I experience a general sense of emptiness” and “I miss having people around” had the highest factor loadings on the emotional loneliness factor, while “there are enough people I feel close to” had the highest loading on the social loneliness factor. Since the distinction between emotional and social loneliness equals the split between negatively and positively phrased items, the two-factor solution might be influenced by response sets (Van Baarsen et al., 2001). However, research using other loneliness scales, including the UCLA Scale, has supported the distinction between social and emotional loneliness (Ernst and Cacioppo, 1999: p. 4-5).

A more sociologically informed understanding can be found in the social constructionist approach of Wood (1986). She links loneliness to “the essence of social life”: intersubjectivity. Intersubjectivity is the mutual awareness and understanding that characterizes an interaction, grounded on the commonality of taken-for-granted meanings. Wood defines loneliness as the individual experience of *failed* intersubjectivity. In chapter 2, I cited a definition of loneliness, as the “...outcome of a cognitive evaluation of the match between the quantity and quality of existing relationships and relationship standards”. Wood proposes that a discrepancy between existing relationships and relationship standards will be interpreted as loneliness only if it involves a failed intersubjectivity. “It is not only that “lonely” people think that others do not understand them; they also do not understand others; there is an absence of shared understandings” (Wood, 1986: p. 189).

From a social constructionist point of view, loneliness, as other emotions, is seen as narratives. Indeed, our self-identity can be conceptualised as a form of story (Giddens, 1991). The content of the stories has many sources, not least the internalization of representations in popular culture. Some stories will be seen as more appropriate, and easier to live by, than others. However, at their most abstract level, “...all stories of loneliness will have as their central theme the failure of intersubjectivity” (Wood, 1986: p. 205).

Wood’s viewpoints are interesting as a more sociological way of describing the experience of “unwanted separateness”. Her ideas have, at least in some respects, similarities to the work of Scheff and Collins. Scheff (2007) has recently discussed the concepts of solidarity and alienation in light of Goffman’s work on “mutual awareness”. However, for Scheff the primary consequence of a lack of mutual awareness is the feeling of shame, while loneliness is not mentioned.

Wood points to the provision of shared experience as one of the functions of rituals. Groups without rituals are at increased risk of experiencing loneliness. This line of reasoning resembles the work of Collins. However, and similar to Scheff, Collins (2004) devotes little attention to loneliness. The prime consequence of failed rituals is a lack of emotional energy.

Perhaps this is mostly a question of labels, and of focusing on different aspects of the same complex, interrelated process. It seems rather straightforward to bring the experience of loneliness into the model of Collins. Like shame and depression, loneliness can be seen as a particular form of low EE. Loneliness is the opposite of the strong feelings of group membership that follow in the wake of

successful rituals. Psychological research gives a description of lonely individuals that has clear similarities to the description given by Collins of individuals that are low in EE. Lonely persons tend to lack initiative. They "...don't ask many questions...", are "...passive and unresponsive" and "...slow to respond to things said by their conversational partners..." (Miller et al., 2006: p. 446). Loneliness leads to lower self-esteem and heightens feelings of insecurity and people's sensitivity to threats and rejection (Cacioppo et al., 2006a). Since loneliness decreases emotional energy, self-esteem and initiative, lonely people tend to behave in ways that worsen their social situation, increasing the risk of making temporary feelings of loneliness persistent.

As mentioned, loneliness is often treated as a symptom of depression. However, recent research indicates that it is empirically possible to separate the two phenomena, although they are substantially correlated (Cacioppo et al., 2006a). In a longitudinal sample of middle-aged and older, American adults, reciprocal influences between depression and loneliness were found (Cacioppo et al., 2006b). Loneliness predicted later changes in depression, and vice versa.

Empirical studies

Turning to the empirical relations between social integration and loneliness, a near universal finding is that persons without a partner, through marriage or cohabitation, are lonelier than persons with a partner. This is particularly the case for emotional loneliness (see findings in paper I, and Stroebe et al., 1996; Stack, 1998; Van Tilburg et al., 1998; Van Baarsen et al., 2001; Pinquart, 2003; De Jong Gierveld and Van Tilburg, 2006). Divorcees, men to a larger extent than women, are more socially and emotionally lonely than those married or remarried (Dykstra and Fokkema, 2007). Another aspect of family integration, parenthood, is only weakly related to loneliness. However, being a parent lowers the risk of loneliness for men under the age of 40 (Stack, 1998). The influence of children also seems to be related to differences of national culture. Living with children alleviates feelings of loneliness among older adults in Tuscany, while the opposite is the case in the Netherlands (Van Tilburg et al., 1998).

A lack of support breeds loneliness. Persons who report that their partners are emotionally supportive are less lonely than persons without this support (Stevens and Westerhof, 2006); similarly persons who have an intimate and confiding relationship with their partner are less lonely than persons in partnerships lacking these characteristics (De Jong Gierveld and Van Tilburg, 1989). Perceived emotional support from friends and family, and instrumental support from children, was inversely related to loneliness in a study of married Dutch and German respondents (Stevens and Westerhof, 2006). Serious conflicts within the partnership also increase the likelihood of loneliness (Dykstra and Fokkema, 2007: p. 8).

While quality of contact is generally the most important factor, the quantity of contact is independently related to loneliness (Van Tilburg et al., 1998; Pinquart, 2003). Similarly, the size of the network matters (Van Tilburg et al., 1998), but this depends on which aspect of the loneliness experience that is in focus. The size of the support network is inversely related to social loneliness, but not to emotional loneliness (Dykstra and Fokkema, 2007). A meta-analysis of cross-sectional studies on loneliness in older adults, confirms that lower quality of contact is more strongly correlated with loneliness than lower quantity of social contact⁸. This is regardless of the loneliness measure used, although the correlation between quality of contact and loneliness tends to be highest when direct, single item questions are used. Contact with friends and neighbours was more important for alleviating feelings of loneliness than contact with family and children (Pinquart and Sörensen, 2001). In younger age groups also, friendship is an antidote to loneliness (Kraus et al., 1993).

Few studies have looked at the extent to which loneliness mediates the effects of "objective" social integration on mental health. An exception is the longitudinal study by Stroebe et al. (1996), who

⁸ Quantity was measured as the size of the social network or the frequency of contact with others. Quality "...was measured by specific items, such as getting emotional support or feeling close to someone..." (Pinquart and Sörensen, 2001: p. 250).

analysed the consequences of bereavement. The impact of marital status (married versus widowed) on depression was completely mediated by emotional loneliness. The effect of bereavement on depression was reduced to zero when emotional loneliness was entered first in the regression (Stroebe et al., 1996: pp. 1246-1247). Also, controlling for social loneliness substantially reduced the effect of social support on depression.

Loneliness has been implicated as an antecedent to suicide. Among Norwegian youth, suicide attempts are much more prevalent in the lonely than in the non-lonely segment of the population (Rossow, 2004). In addition, several studies have found loneliness to be a risk factor for alcohol and drug abuse (Ernst and Cacioppo, 1999: p. 11).

4.9 Concluding comments

The Durkheimian perspectives inherent in some versions of the sociology of emotions (Collins, Scheff, Kemper and others) are very interesting, and promise to take core ideas within the work of Durkheim to a new level of sophistication. However, up until now these perspectives have not been extensively tested in empirical research. Unfortunately, theories related to the sociology of emotions have usually not been referred to by sociologists in the field of mental health, where the stress adjustment perspective is the dominant frame of reference, and there has not been much research on antecedents and consequences of loneliness in either of these fields (the sociology of emotions, the sociology of mental health). Loneliness research has been dominated by psychology and by researchers in the field of gerontology, although much research shows that old age is far from synonymous with loneliness.

The task of discussing sociological perspectives on the consequences of social integration for mental health is therefore a difficult one, complicated by the relative separation of the relevant intellectual fields. Of course, a number of questions are raised by the preceding presentation, questions that cannot be answered fully without more research and a better integration of the various sub-fields. Are, for example, the stress adjustment perspective and the interaction ritual perspective incompatible? Perhaps not. A subordinate position in a power ritual, and/or an excluded position in a status ritual, can be seen as a potential source of chronic stress. EE (emotional energy) can be understood as a moderating coping resource. Collins links high EE to confidence and the tendency to take the initiative in social settings; there are obvious points of similarity here with the concepts of perceived power/powerlessness and self-efficacy. Both low EE and perceived powerlessness are seen as the cumulated outcome of a series of social experiences; a continual subordinate position is implicated in both cases. Like shame, loneliness can be seen as a particular form of low EE.

IR theory could also give new perspectives on why stressors create depression. According to IR theory, unless there is a mutual synchronisation of words and gestures, a rhythmic entrainment, the interaction ritual will fail. Stressors like disease, economic problems or social conflicts (undermining) can disrupt synchronisation, the “smoothness” of social interaction, by making it more difficult to achieve a common focus, achieve an immediate understanding of what the other persons means, etc.

What are the relations between the diverse psychological concepts that are used in the literature, the concepts of meaninglessness, low self-worth, shame, perceived powerlessness, loneliness or anomie? All these concepts have in one way or another been implicated as a mediating, intervening variable, between social integration and mental distress, in particular depression. As I have shown, there is some empirical support for each of these intervening variables. Unfortunately, they are seldom used in the same study, making it difficult to say anything with a degree of certainty about how they are related. The research literature gives us every reason to believe that they are correlated and involved in chains of reciprocal causal influences. For example, all of the aforementioned, negative feelings conceivably contribute to feelings of meaninglessness in life, which again contributes to depression

and suicidal behaviour. A continued experience of these feelings should also lead to stronger feelings of powerlessness, reinforcing the feelings of meaninglessness and so on.

5. PLACING THE DISSERTATION IN THE THEORETICAL LANDSCAPE

Introduction

The data sources for this dissertation are primarily the Level of Living Surveys conducted by Statistics Norway. These surveys are a part of a larger tradition, the Scandinavian tradition of living conditions research. The assumptions and theoretical underpinnings of this tradition are so to say “embedded” in the survey data.

I will therefore start by giving a brief overview of the Scandinavian approach, before I place my four papers in relation to this approach and to the other theoretical perspectives I have discussed.

The Scandinavian living conditions tradition

As mentioned in chapter 1, it was not until the 1960s that a systematic collection of data covering a broad range of living conditions was started. The first survey was the Swedish *Level of Living Survey*, carried out in 1968. This survey became a model for the first Norwegian survey in 1973.

In the Swedish approach, level of living was defined as individuals’ command over resources in terms of money, health, education, family etc., with which the individual can lead his life (Johansson, 1970, 2002). This definition was inspired by the work of Richard Titmuss (Titmuss, 1958). Implicit in this definition was a view of human beings as actively involved in shaping their destiny, and not passive victims of social forces. In the first Norwegian survey (1973), the resource concept was also a part of the theoretical framework, used in conjunction with the concept of arenas. The foremost theoretical inspiration was the work of James Coleman (Coleman, 1971). A person’s level of living was seen as a result of the interplay between personal resources, the arenas of action the person had access to and the structural characteristics of these arenas. Examples of arenas were the family, the local community, the educational system and the labour market. In these and other arenas the personal resources could be invested and converted to other resources. Resources were both “input” and “output” in the model.

A different approach was found in the work of Erik Allardt (Allardt, 1975, 1993, 1998). Allardt was involved in the second large-scale Scandinavian welfare study (following the Swedish study of 1968), conducted in 1972 and based on a sample of respondents in all the Scandinavian countries (with the exception of Iceland). Instead of focusing on resources, Allardt defined welfare in terms of the fulfilling of basic needs. Three dimensions of welfare needs were singled out: having, loving and being. Having refers to material needs and the necessary conditions for physical survival and the avoidance of misery. Examples are income, health and employment. Loving refers to social needs, the need to relate to other people and form social identities. As indicators on the fulfilment of social needs, variables describing the respondent’s relation to the local community, to the family and to friends were used. Being was the third kind of basic need, defined as the need for personal growth. Failure to achieve basic needs satisfaction in this area would result in a state of alienation. Examples of indicators related to this need were opportunities for leisure-time activities (“Doing”, including organisational membership), and political activities.

Allardt placed much more emphasis on what I have called social integration than the Swedish resource approach. The dimensions of Loving and Being are defined in terms of relations, either to neighbours,

family and friends, or to society in general and institutions like work and voluntary organisations. He also placed more emphasis on subjective indicators (including loneliness), while the Swedish and Norwegian approaches were more exclusively focused on objective measures. Allardt felt that the resources approach was too narrow. He was probably right in claiming that his approach enabled the consideration of a "...fuller and richer range of conditions for human development" (Allardt, 1993: p. 89). However, the advantages of the resource perspective, especially as developed by Coleman, lies particularly in its use as a framework for understanding changes in welfare, and how living conditions are dynamically related. In an effort to describe and understand how living conditions change over time, the resource-arena approach points to how social actors are enabled or constrained by their access to resources and arenas, and how particular resource-arena constellations at one point in time have consequences for later constellations.

Allardt acknowledged that the questions covering the dimension of "Loving" was rather badly prepared and very crude. The questions suffer from many of the same shortcomings as similar questions in the Norwegian surveys (see a detailed critique in the next chapter).

The Norwegian surveys of Level of Living from 1980 and onwards was influenced both by the resource approach and by the basic needs approach (Andersen et al., 1981). However, the weight placed on political relevance and on "objective" indicators places the Norwegian surveys closer to the Swedish approach than to the approach represented by Allardt.

The dissertation

The theoretical legacy of the Scandinavian approach is most obvious in paper I, where I hypothesise that isolation and loneliness are a function of command over resources and participation in arenas. For a further understanding of the distribution of isolation and loneliness in society, the paper makes use of Bourdieu's capital theory. For Bourdieu, the different forms of capital (economic, cultural, social and symbolic) represent resources, although not any form of resource, but a particular kind, i.e. accumulated labour. The forms of capital enable agents to "...appropriate social energy in the form of reified or living labor" (Bourdieu, 1986: p. 241).

Social capital theory is useful for capturing the dynamic aspects of social integration; the formation and reformation of social relations. In the work of Bourdieu (as in the work of James Coleman), social capital is conceptualised as the process of activating collective resources (Thorlindsson et al., 2007: p. 168). To understand how close social relations are associated with other aspects of the living conditions, it is useful to see the formation and reformation of close relations as a kind of work, a work that demands resources or capital in the form of time, money, knowledge, "manners", "connections" etc. Access to the arenas where people meet also demands resources. For example, cultural capital in the form of educational qualifications is an obvious resource in efforts to gain or regain access to the labour market, and also functions as symbolic capital in the marriage market.

Social capital theory is also a part of the theoretical framework in paper III, not least the crucial distinction made by Putnam and others between bridging and bonding social capital (cf. chapter 2).

In paper III, tracing the trends of social integration, integration is conceptualised in accordance with the discussion in chapter 2. The quantitative and qualitative dimensions are defined and interpreted with reference to Durkheim and later theorists in the Durkheimian tradition (Thoits, Collins). Different views on the fate of social relations in "late modernity" are contrasted, citing Hage and Powers, Giddens, Calhoun and Beck, among others.

Paper II and IV are primarily concerned with the consequences of social (dis)integration, with paper II focusing on consequences for the risk of suicidal behaviour, and paper IV on mental distress. In these papers, important theorists in the Durkheimian tradition (Thoits, Collins, Scheff) are used as a part of the interpretative framework, as are coping and other crucial concepts in the stress-adjustment perspective. These theorists and perspectives are seen as supplementing each other rather than

necessarily being contradictory. They all predict negative consequences of disintegrative events like separations and unemployment for mental health and suicide risks, and positive consequences of integrative events. The data at hand does not allow a further test of precisely what mechanisms that are involved.

The interaction between social integration and substance abuse is given much weight in paper II, in accordance with a “Post-Durkheim” reformulation of integration theory, seeing heavy alcohol consumption as a risk factor for social isolation.

Generally, alienation theory is not referred to, but in paper IV the “sense of control” perspective is brought in as a possible explanation for the finding that long-term cohabitants are more distressed when their partnership is dissolved than a similar group of married. The formal rules of the marriage dissolution might give more predictability and a stronger sense of control in the chaotic situation that arises when a partnership is dissolved. Put another way: The lack of definite rules in cohabitation, which otherwise might be experienced as freedom, increases the risk of experiencing anomie when the long-term partnership is in the process of dissolution.

In paper II, anomie is brought in as a possible explanation for the finding (in other research) of a higher suicide rate among cohabitants.

The gender perspective

Throughout all the papers, the difference between men and women is considered. This is both due to empirical and theoretical reasons. The gender differences are a recurrent theme in the research literature. Historically, men and women have been assigned different roles. Lower status, homemaker roles have been assigned almost exclusively to women, while higher status work roles have been performed predominantly by men. This gendered division of labour has created both stereotypic gender role expectations and gender-typed skills and beliefs by providing men and women with different experiences. Women are expected to behave more communal than men (more friendly, concerned with others and emotionally expressive), while men are expected to behave more agentic (instrumental, assertive). These expectations act as self-fulfilling prophecies (Ridgeway and Smith-Lovin, 2006: pp. 251-253). The actual differences are often exaggerated, but research confirms that women have a somewhat more communal, supportive and warm communication style than men. Concerning friendship, women engage more in self disclosure in their friendships than men. These differences are quite small in mixed-sex relations, while moderate of size in same-sex interaction. Both men and women disclose more to women, confirming the gender stereotype (Ridgeway and Smith-Lovin, 2006: p. 267). Such differences might explain why the avoidance of loneliness among men, compared to women, is more dependent on having an intimate partner, and why women seem to depend comparatively more on friendship (paper I). If men’s same-sex friendships are less self disclosing than women’s, then men’s friendship could be less effective in “fending off” loneliness. Men seem more likely than women to meet their needs for intimacy in the family (Allan, 1989: p. 73).

Consistent with these perspectives and with gender construction theory (Erickson, 2005), disintegrative or integrative events in the spheres of family, friendship and work may affect the two genders differently. Family, friendship and work roles have, at least historically, had varying importance for how men and women conform to culturally based constructions of gender, and thereby been able to maintain a “masculine” or “feminine” identity. For example, losing a job has traditionally been conceived to be a bigger blow to a masculine than a feminine identity, threatening men’s gendered conception of themselves. On the feminine side, the emotional symbolism of becoming a parent is perhaps more important for maintaining the identity of a “real” woman. Again, it is important not to “reify” these differences, if they are found. There is reason to believe that they are changing, not least because the gendered division of labor is changing⁹. For example, what it means to be a “man”

⁹ Concerning the gendered effects of unemployment, a recent meta-analysis found that unemployed women in fact displayed lower mental health than unemployed men. This may reflect the general finding that women have more mental health

has obviously changed, and varies widely among men. While men in general see themselves in more masculine-instrumental terms than women, some men construct their gender in feminine-expressive terms. These men do more “emotion work” (listens, encourages, do favors etc.) than traditional men (Erickson, 2005).

6. METHODOLOGICAL CONSIDERATIONS

Introduction

The Norwegian Level of Living Surveys, carried out by Statistics Norway, form the basis of three out of four of the papers in this dissertation. The cross-sectional surveys of 1980 and 1995 are the basis for paper I, while 12 of the cross-sectional surveys from 1973 to 2005 form the basis of paper III. In essay IV the source of data are the yearly panel surveys from 1997 to 2002. Interviews have been done either face-to-face or by phone. In later years, a sub-sample of questions has been posed in a postal questionnaire.

The samples to the Level of Living Surveys are drawn by a two-stage, stratified sampling procedure covering the entire Norwegian population 16+ (the 1980, 1983 and 1987 surveys excluded persons older than 79). The non-response rate has increased gradually, although not dramatically. The non-response rate in the cross-sectional surveys was 23 percent in 1973, 25 percent in 1991, and 30 percent in 2005. Comparisons of the net samples with the gross samples show only minor deviations for demographic characteristics, but elderly persons 80+ are under-represented in the net sample due to their high non-response rate (47 percent in 2005, see Hougen, 2006: p. 12). Since 1997, weights correcting for non-response bias have been implemented.

Social integration in the Level of Living Surveys –some shortcomings

The theme of social integration has never been given a prominent place in these surveys. This is particularly the case considering the “softer” side related to primary relations, social support and loneliness. The questions covering these aspects have been few and limited. Priority is given to themes that have been considered more politically relevant. Also, since the surveys are meant to cover living conditions in some breadth, there is limited room for in-depth questions on particular subjects.

I will first look at limitations concerning the quantitative dimension of social integration. The questions on frequency of contact do not cover all forms of contact, most notably contact with relatives other than children, parents and siblings. This contributes to an overestimation of the extent of social isolation, particularly among the elderly. Norwegian research has shown that 4 out of 10 childless persons 80 years and older have a nephew or niece as their closest contact (Gautun and Romøren, 1992). Also, considering the importance of having an intimate partner, the surveys only cover intimate partners that one shares a household with, by marriage or cohabitation. There are no questions covering the existence of steady dating relationships or “living apart together” arrangements. In addition, the questions do not cover frequency of contact with all forms of leisure-style relationships, for example with fellow workers or students etc., unless they happen to be close relatives or characterised as “friends”.

Another quantitative limitation is set by the fact that only frequency of contact is covered, not time use or stability of contact. Are face-to-face meetings short or long? Time use surveys and diary studies are

problems than men, irrespective of work status, or that changing gender roles have given work a more central place in the identity of women, as some studies suggest (McKee-Ryan et al., 2005).

probably better suited for mapping this last aspect of social integration (cf. paper III). Also, questions on contacts that are not face-to-face have usually not been posed in these surveys, i.e. all kinds of indirect communication that have proliferated in the last decades, by means of (mobile) phones, SMS, e-mail etc. Although there is reason to believe that these forms of communication cannot replace face-to-face communication (cf. the discussion in chapter 2), they may still serve to intensify and strengthen social bonds, and make it easier to build and maintain a network of weak ties.

A general problem with questions on social integration in the Level of Living Surveys is that they probably conceal important variations between groups. Consider the questions on frequency of friendship contact: the respondents are asked if they have a good friend, and then how often they see their friends; the alternatives range from nearly never to daily. Let us think of two fictional persons, A and B. A is unemployed and has low income, while B is employed and with a high income. A only has one friend, who is also unemployed; she has a short, 30-minutes meeting with her once a week. B has ten good friends, from a diversity of backgrounds. He does not meet each friend very often, but he spends an entire evening with at least one friend once a week, and has extensive mail/SMS-contact with other friends during a regular week. The friendship relations of A and B are vastly different, but this difference would not be visible using the traditional friendship questions. They both “see good friends at least weekly”. The correlations with background variables like unemployment and income are likely to be affected.

The most telling weakness, however, of the Level of Living Surveys, is related to the qualitative dimension. Negative aspects (conflicts and social undermining) are not covered at all. We do not know if relations are reciprocal and trusting, or conflict-ridden and ambivalent. Questions on positive aspects are very limited, although the latest surveys have more questions on positive aspects of social relations (social support) than earlier surveys. In the 2002 and 2005 Level of Living Surveys, the “Oslo social support scale” was used, consisting of three items: number of confidants, the feeling of interest and concern from others, and the possibility of practical help from neighbours (Dalgard et al., 2007).

The measurement of mental health and loneliness

Paper IV uses a short-version of the Hopkins Symptom Checklist (HSCL-25). The 5 items are related to anxiety and depression. A less validated and cruder measure of mental health, also focusing on anxiety and depression, is used as one of the independent variables in paper I. It would have been preferable to cover a broader range of mental health indicators. One of the shortcomings is that the indicators used do not cover the behavioural dimension (apart from suicide rates, the dependent variable of paper II). Examples of behavioural indicators are alcohol and drug abuse. Bierman et al. (2006) show how results can differ, depending on the choice of indicator. Those never married do not show higher levels of mental distress compared to married persons, but report more alcohol abuse and less purpose in life.

Direct, single item questions on feelings of loneliness (used in the Level of Living Surveys and analysed in paper I) are more strongly correlated with emotional loneliness than with social loneliness (Van Baarsen et al., 2001). Important variations and complexities of the loneliness experience are probably missed by using the direct, single item question, especially in the context of a face-to-face interview (see below, on social desirability bias).

Social desirability bias?

In the Level of Living Surveys, data collection is mainly done by means of a personal interview, face-to-face or by phone. The questions covering social relations, loneliness and mental health are of a relatively personal and sensitive nature. There is reason to believe that the answers might be influenced by social desirability, i.e. by what the respondent believes is the expected, “normal” answer. That this is a problem has been shown on a number of occasions, not least in relation to mental distress (Moum, 1998) and unhappiness (Barstad and Hellevik, 2004). Some social groups are more influenced by social desirability than others, complicating the task of comparing the level of

mental distress, loneliness etc. between groups. Other mechanisms are perhaps also involved. In the perspective of Collins (2004), the interview situation can be seen as an interaction ritual. If the interview situation is a positive IR it could cause a temporary rise in the level of EE. The level of EE reflected in the answers might not be representative for other situations in the life of the respondent.

The use of a direct, single item, question on loneliness (paper I) could lead to a stronger social desirability bias than the use of multiple item scales that measure loneliness more indirectly, like the UCLA Loneliness Scale and the De Jong Gierveld Loneliness Scale (discussed earlier in chapter 4.8).

Social desirability could also influence the reporting of quantitative characteristics (Espvall and Dellgran, 2006). Some respondents will see a low frequency of interaction with friends and relatives as a sign of personal failure. A large social network is on the other hand a sign of popularity and success; borrowing a term from Bourdieu, one could say that it functions as a form of symbolic capital (Bourdieu, 1986). This points to the risk of underestimating the extent of social isolation in interview-based survey studies.

General problems with cross-sectional survey data

In addition to these problems, there are some more general problems concerning the use of cross-sectional survey data in the study of social integration and its consequences. Ideally, social integration should be studied as a multi-level, longitudinal phenomenon, where processes at the community and/or group/dyad level affect outcomes at the individual level and vice versa (cf. Thorlindsson and Bernburg, 2004). This is at the heart of the Durkheimian perspective. Inferring information on group processes from only one of the participating individuals is problematic. There are important macro/meso level characteristics that individuals have little or no awareness of. An intriguing example was mentioned in chapter 4: a longitudinal study of couples collected data on both parties, and found that a certain characteristic of the dyad interaction process (support given according to the spouse, but unnoticed by the husband/wife) was the most effective in reducing depressive mood on the following day (Bolger et al., 2000).

Lastly, a problem with large-scale survey data is that there is no room for investigating the *meaning* of the psychosocial phenomena under scrutiny. For example, what does it mean to have a friend? Has this meaning changed over time, and does it differ between groups, for instance between men and women? As shown in other research, the term “friend” crosses a wide range of very different meanings and types of relationships, from the whole-hearted soulmate to the “friendship” we feel obligated to maintain and even do not like (Pahl, 2000). To investigate questions like these, qualitative or cultural-historical studies probably have more to give than large-scale surveys. These are potentially important questions. The “grand old man” of Finnish sociology, Erik Allardt, argued long ago that the phenomena of social integration and community first and foremost are “events of the language” (Allardt, 1975: p. 32). A common language is a prerequisite for community, and community is constituted by the meaning of words like “friend”, “love” and “solidarity”.

The aggregate level data

The data source of paper 2 differs from the other papers. It is based on national, aggregate level, indicators of social integration and suicide rates in the time period from 1948 to 2004. A problem with aggregate level data is that results found at the aggregate level cannot necessarily be “translated” to an individual level (Robinson, 1950). However, the Box-Jenkins approach to time series analysis has some advantages over the usual ecological approach. First, the differencing procedure reduces the chances of omitted variable bias. Second, the error term structure is explicitly considered (Norström, 1989).

The appropriateness of using aggregate level data also depends on the research question at hand. If the question considered is the total, societal consequences of an increase in social disintegration on the suicide rates, then an aggregate level approach has some advantages. As discussed in paper 2, one of the contributions of aggregated time series data is the possibility of capturing both direct and indirect

effects of the integration variables. On the other hand, it is very important to validate the findings from aggregate level studies with results from other types of studies.

A problem with the time series analysis in paper 2 pertains to the lack of information on certain variables over this long period of time. Particularly troublesome is the lack of annual sex and age-specific information concerning alcohol consumption. Survey data show that trends of alcohol consumption in Norway differ by sex and age (Horverak, 2006). When only the average level of alcohol consumption is used, total and beverage-specific, there is a risk of both overestimating and underestimating the role of alcohol consumption, dependent on the group that is analysed. Since earlier research, aggregate-level and individual-level, has indicated that alcohol consumption is strongly related to the risk of suicidal behaviour, this is a problem of some concern. In the paper, the problem is to some degree alleviated by introducing other measures of alcohol consumption.

The problem of causal inference

A fundamental prerequisite for causal inference is that the cause (x) precedes the effect (y) in time. In cross-sectional surveys, as those used in paper I and III, it is often very difficult to be certain of the direction of causality. In paper I, it is found that there is an empirical connection between social isolation and economic resources. However, whether economic resources affect the risk of isolation, or isolation affects the access to economic resources, is impossible to determine with any certainty given the nature of the empirical data. A third possibility is that both the level of economic resources and social isolation are influenced by a third, unobserved variable, exemplified by differences of personality or childhood environment (see discussion in paper I).

Longitudinal data give much better opportunities for causal inference. In paper II, aggregate level longitudinal data are used. Selection effects due to personality differences or other unobservable variables pose less of a problem at the aggregate level. All unmeasured time-invariant factors that are correlated with suicidal behaviour at the individual level are turned into a constant at the aggregate level (Norström and Skog, 2001: p. 9). It is unlikely that personality characteristics will show much fluctuation over time, at least when the differenced data (annual changes) are considered. There is still a risk of omitted variable bias, although this risk is reduced by the differencing technique and the estimation of the noise structure.

In paper IV, I use individual-level, longitudinal (panel) data. The selectivity from stable personality characteristics is in this case avoided by applying the fixed effects approach. Thereby one of the possible explanations for the correlation between partnership dissolutions and mental health can be controlled for: the permanent selection explanation, implying that some personality characteristics cause both partnership dissolution and mental distress. However, failing to include all relevant time-varying factors will bias the results. It is also difficult to rule out the possibility of temporary selection effects. For example, the partnership dissolution could be caused by a temporary rise in the level of depression, unrelated to the stable unobserved characteristics and the measured time-varying variables. The dissolution would then simply be a marker for temporarily high values of depression (Allison, 1994: pp. 195-196, who uses the example of job loss and depression). In practice it is probably more fruitful to think of the relation between depression and partnership dissolution as a process of mutually reinforcing influences (see discussion in paper IV).

Concluding comments

The problems with the data used in this dissertation are evident. I have not collected my own data. Rather, I have used the statistical data sources that are available in Statistics Norway. On the other hand, the weaknesses should not be exaggerated, and there are some remedies. Most importantly, results can be compared with results from other research, where alternative, more sophisticated approaches are used. This is done extensively in this dissertation. While the indicators of social integration and disintegration are crude and simple, mostly based on quantitative measures, other research (as shown in chapter 4) demonstrates a correlation between these indicators and more qualitative aspects, such as perceived support or global meaning. As an example, although there is

little information on the quality of partnerships in these surveys¹⁰, research shows that the vast majority of marriages/cohabitations are fairly supportive and not troubled by extensive conflict (Thorsen, 1990; Bertera, 2005).

One of the strengths of large-scale surveys like the Level of Living Surveys are that they have a fairly large sample size and cover the whole nation, thereby enabling the researcher to be fairly certain that the conclusions drawn are representative of the population at large. Many other forms of data are limited by a low and/or not necessarily representative number of observations. Also, in the Level of Living Surveys the same questions on social integration have been posed in repeated surveys over a period of (for some questions at least) more than 30 years. Although the interpretation of the results is not always straightforward, for many aspects of social integration they are the only source available to give us an impression of trends over time.

The data from the yearly panel survey on living conditions, done by Statistics Norway in the period 1997-2002, give, as discussed, much better opportunities for causal inferences than the “old”, cross-sectional surveys. Thereby it is also possible to make more progress in the understanding of how different aspects of living conditions are connected and influence each other.

7. SUMMARY OF PAPERS I-IV

Paper 1: Who are the lonely and isolated?

The aim of the paper is to contribute to a better understanding of insufficient social integration as a phenomenon of Norwegian society. What is the relation between loneliness, social isolation and other aspects of living conditions? Have these relations been stable over time? The data sources are The Level of Living Surveys of 1980 and 1995. The paper discusses the importance of resources and arenas for a persons close relations, inspired by Bourdieu’s theory on the relation between cultural, economic and social capital. On the basis of this discussion, I expected the risk of social isolation and loneliness to be less, the more resources a person has access to. This expectation is partly confirmed, depending on gender and what measures of isolation and loneliness are used. The isolated and lonely generally have less cultural and economic capital than persons that are not isolated and lonely. They have lower education levels and incomes, and fewer material goods. The significance of education is, however, primarily indirect. When account is taken of the indirect influences, there does not seem to be any credence to what has previously been claimed in research into loneliness in Norway, that loneliness affects different social layers equally. The correlation between low income and loneliness underlines this point. The risk of lacking close relations is particularly high if a person is low in both cultural and financial capital. Being in good health, mentally and physically, reduces the risk of isolation and loneliness, but only for women. The hypothesis that a short period of residence increases the risk of social isolation is not supported.

The significance of access to arenas for social isolation and loneliness is confirmed in some cases. Unemployment among men is associated with a greater risk of lacking close relations, for women there is a significant correlation between not participating in working life and experiencing loneliness. Participating in voluntary organisations is linked to a slightly lessened risk of social isolation. Being in education is of little significance.

There are no strong tendencies indicating that any of the resources or arenas changed their importance with regard to social isolation, from 1980 to 1995. The hypothesis of an increasing significance of the

¹⁰ In the Level of Living Survey 2005, for the first time some questions were posed concerning the amount of support and positivity between the respondent and his/her partner (in the postal questionnaire part of the survey)

level of education for social isolation is not borne out, although there are trends that point in this direction. There is a tendency among men for employment to have less significance than previously. This can be due to the different labour markets at the two periods in time. Among men, it was more common to be employed full time, and fewer were unemployed in 1980 than in 1995. It was probably a more select sample of men who were unemployed in 1980 compared to 1995.

The hypothesis of a statistical correlation between resources and loneliness, regardless of a person's close relations, is partly confirmed among women, but not among men. For men, it is only close social relations that have a direct effect on the risk of feeling lonely. For women it is different; both higher education and good health reduce the risk of feeling lonely, even when variables related to close social relations are entered in the regression analysis.

Paper II: Explaining changing suicide rates in Norway 1948-2004: The role of social integration

Using Norway 1948-2004 as a case, I test whether changes in variables related to social integration can explain the changes in suicide rates. Norway had a strong, linear trend of increasing suicide rates in the period from 1960 to 1990, stronger than in many other countries. Since 1988 there has been a substantial downward trend. Still, in 2004, the suicide rate was considerably higher than in any of the years before 1960. The trend for young men has been particularly negative.

As independent variables I use aggregate level data on suicides per 100 000 inhabitants, separately for all men and women, and for young men (age group 15-24). Independent variables are registered alcohol consumption, both totally and beverage specific, GNP per capita, public assistance/social assistance per 1000 inhabitants, the unemployment rate and a number of variables related to family integration: fertility level, divorces, separations and marriages. The analysis of the suicide rate for young men is limited to the period 1970-2004. The method is the Box-Jenkins approach to time series analysis.

Consistently, different aspects of family integration contribute to the explanation (in a statistical sense) of the Norwegian suicide rates during the post-war period. A rising number of separations are clearly related to increasing suicide rates, both for men and women. The estimated effect of separations is stronger than the effect of divorces, probably because separations are closer in time to the real marital break-up. This difference has not been demonstrated in earlier time series research. The male suicide rate drops when more people get married. Both increasing alcohol (beer) consumption and fewer marriages seem to be implicated in the soaring suicide rate for young men since 1970. The estimated effect of beer consumption among young males is in accordance with a "post-Durkheim" reformulation of integration theory; heavy alcohol consumption is a risk factor for social isolation and conflicts. Unemployment has a slight negative effect for males, contributing to a reduction in the suicide rate.

The results point to the weakening of family integration as perhaps the most important factor associated with increasing suicide rates in post-war Norway. This conclusion fits well with conclusions from recent studies in other rich, Western countries. The generally insignificant effect of unemployment is also in accordance with several recent, aggregate level studies. However, the finding that unemployment does not increase the male suicide rate could be a result of failing to adequately capture changes in the level of alcohol consumption.

Paper III: Social integration in late modern society. The case of Norway 1973-2005

Robert Putnam has claimed that there is a decline of social attachments and trust in the US, and others have claimed that similar trends can be found in Norway and Western, rich democracies in general. These contentions fall into a longstanding preoccupation in sociology with modernity's negative influence on social integration.

On the basis of the Norwegian Level of Living Surveys, a total of 12 surveys that span the years from 1973 to 2005, individual level integration into four types of social groups are investigated. The first two are family and friends, which represent bonding and “strong tie” relations. The second two are associational groups and work/school groups, which represent bridging, “weak tie” relations. A range of surveys and other data point to the importance of these groups for interaction, support and a sense of belonging and community. The concept of social integration is preferred to the concept of social capital. In many ways social capital is “old wine in new bottles”. Both concepts focus on social connections, but Putnam's social capital perspective has a particular interest in civic connections, while intimate family and friendship connections loom larger in the perspective of individual level integration.

The pessimistic descriptions given by Putnam and others receive limited support. In the context of Norway, there has been no general decline of social integration during the last 30 years. The case is rather the opposite for friendship interaction and confiding relationships outside of family circles. More people socialise on an average day. The evidence for Norway, together with similar survey evidence for Sweden and Denmark over a 30-35 year period (reviewed in the paper), consistently shows social isolation either to be stable or decreasing. The fact that confiding friendships have become more widespread is consistent with Hage and Power's prediction that post-industrial society will be conducive to more intimate social relations, although other explanations cannot be ruled out. This finding is also in contradiction to Lane's hypothesis that a continued frequency of contact among friends masks a decline of warmth. Friendship as a social relation is in many ways prototypical for relations in late modern society. Friendships are typically chosen, informal and egalitarian.

However, trends have generally been less favourable in the 1990s and less favourable for men than for women. Why trends in the Nordic countries seemingly contrast with the US is unclear, but they are consistent with recent research showing that a generous welfare state does not necessarily “crowd out” social support and communal relations.

Paper IV: Leaving a marriage or a cohabiting relationship: What are the emotional costs?

Partnership dissolutions (apart from dissolutions caused by death) have become increasingly common in modern societies. One of the reasons is the spread of cohabitation, a more unstable form of partnership than marriage. A question that still is hotly debated is the consequences of partnership dissolution in terms of mental distress. Separated persons and divorcees are undoubtedly more distressed than those married and cohabiting, but it is less clear if this is due to selection or social causation processes. Also, there is the question whether consequences are short term (the crisis hypothesis) or long term (the permanent strain hypothesis). Specifically, little is known about the consequences of dissolving a cohabiting partnership, and how these differ from dissolving a marriage.

Using Norwegian panel data from 1997 to 2002, I show that partnership dissolutions (both of marriages and cohabitations) have emotional costs and increase distress (symptoms of depression and anxiety), but mainly in the short term. I find little support for a permanent strain hypothesis. However, consequences differ for families with and without children. Divorcees without children are better off after than before the divorce. No significant differences are found comparing the consequences of dissolving a marriage and a consensual union. There is, however, considerable variation within the group of cohabitants. Among cohabitants that do not have a marriage-like relationship (relatively short duration, no children) there is no rise in symptoms of mental distress following dissolution. On the other hand, persons in marriage-like cohabitations (long duration, have children) react much more negatively to the dissolution, even stronger than a similar group of married persons. Also, cohabiting men react more negatively than cohabiting women. The increase in symptoms of depression and anxiety following dissolution cannot be explained by permanent selection. Neither does controlling for changes in circumstances concerning health, economy or employment reduce the effect of dissolutions to any significant extent.

That persons in marriage-like cohabitations experience higher emotional costs, and seemingly react with more pain when confronted with the dissolution of a partnership, is at first glance surprising. It was contrary to my hypothesis, and does not seem to have been reported elsewhere in the research literature. It is, however, in accordance with more anecdotal evidence from family counselling, and can be interpreted in light of cohabitation being an “incomplete institution”. The dissolution of marriage-like cohabitations may be particularly conflict-ridden because there are so many issues that have to be decided on and negotiated. The more ambiguous and anomic character of cohabitations can be a drawback in the dissolution of long term partnerships with children.

8. DISCUSSION

8.1 What is the relation between social integration and other dimensions of welfare?

Education, income and social integration

The results presented in paper I indicate that social integration is not independent of the societal distribution of resources in terms of education, income or material goods. The most consistent effect is found for material goods. Ownership of cars, telephones, own home and holiday cottage is independently correlated with less social isolation and feelings of loneliness (the last effect is significant for men only). With a few exceptions, educational level does not have a direct influence on social isolation and loneliness. The exceptions concern individuals with low income; in this group higher education has an independent, negative effect on the risk of lacking close, bonding relations. Also, for women higher education reduces the risk of loneliness, independently of control variables, social isolation and access to resources and arenas.

Analysis in paper III (results not shown in paper) demonstrated that for men and women in the age group 30-49 the prevalence of weak ties isolation (not active in organisations, working life and in education) decreased with increasing educational level.

How consistent are these results with that of recent research, published since 2000? Looking at Norwegian research, Tone Fløtten (2006) has used the Survey of Level of Living 1998 as a basis for analysing the relationship between poverty and different measures of social exclusion, including loneliness. She finds that income poverty is not related to the risk of being socially isolated¹¹, having a weak personal network¹² or feeling lonely in multivariate analysis. Also, the effect of education is ambiguous. Persons with a low educational level are actually more likely than persons with higher education to see friends and family regularly, but persons with low education are, as expected, more likely to have a weak personal network. Education was not significantly related to loneliness in the multivariate analysis (Fløtten, 2006: pp. 226-240).

So how can these differing conclusions be reconciled? First, Fløtten does not perform separate analyses for men and women. As my analyses show, there are strong interaction effects with gender.

¹¹ The socially isolated are respondents who do not see friends or close relatives at least weekly

¹² Persons having a weak personal network are defined as those fulfilling at least two of the following four criteria: Do not see friends or close relatives weekly, do not have an intimate friend, do not easily get support if the person has personal problems, do not easily get support if the person has economic problems (the last two questions on social support were not posed in the 1980 or 1995 survey)

Education was independently related to loneliness among women only. Second, Fløtten does not take into account the indirect influences of educational level, which is a main point of my paper. Third, there are differences concerning the definitions of both dependent and independent variables. In the regression analysis, the full range of the income variable is not used, only the dichotomy between poor/non-poor. Fløtten acknowledges this limitation, and refers to an alternative analysis, using income deciles, showing that "...the higher [the] income, the lower the risk of being socially isolated..." (Fløtten, 2006: p. 230). The effect of income is rather weak, however. Indicators of economic resources other than income (self-reported economic hardship and receipt of social assistance) were significantly related to the risk of having a weak personal network in the regression analysis. A final problem concerns the definition of social isolation. While my measure of social isolation in paper I includes the household, Fløtten only takes into account the contact with family and friends beyond the household. As mentioned in paper I, I do not find any association between friendship contact and income or material goods. It is first and foremost the household dimension of social integration: living alone/being single, that is correlated with a higher risk of low income and few material goods. Fløtten confirms in her analysis that single persons relatively often are income poor and lack important consumer durables.

Other parts of Fløtten's analyses are more consistent with my own. She constructs an index of multiple social exclusion by adding exclusion from civil society (no organisational memberships) to the exclusion from personal contacts. Higher educational level is clearly related to a lowered risk of being socially excluded. While being income poor is not independently related to social exclusion she finds that both self-reported economic hardship and receipt of social assistance have significant effects on the risk of multiple social exclusion (Fløtten, 2006: p. 247). The non-existent association between income poverty and friendship integration is confirmed by Dahl et al., (2008), while they do find an association between income poverty and non-participation in civic organisations.

As discussed in chapter 6, a general problem with questions on social integration in the Level of Living Surveys is that they probably conceal important variations between groups. This is not least the case with the question concerning friendship contact, used in my own papers and in Fløtten (2006) and Dahl et al. (2008). The sometimes weak or non-existent relationships between socioeconomic resources and patterns of social relations, particularly friendship, should be seen in light of these shortcomings. In contrast, a study of Swedish children and adolescents (10-18 years old) posed a more varied and broader range of questions on friendship and other social relations (frequency of seeing friends, number of friends, popularity, support etc.) and investigated whether these characteristics were correlated with measures of economic resources (Olsson, 2007). The greatest differences were related to capital goods and the number of friends. The probability of having at least 6 friends was 0.56 for those adolescents who had four capital goods, compared to 0.35 for those with only one of the listed capital goods (TV, CD player, mobile phone, computer). Perhaps not very surprisingly, popularity was also significantly related to the number of capital goods. In addition, own cash margin was among the economic variables that significantly influenced both popularity and the number of friends in multivariate analyses.

Both my own analysis and the work of Olsson suggest that findings are dependent on the specific operationalisation of economic capital. A recently published analysis of the Swedish Survey of Living Conditions from 1998 (Halleröd and Larsson, 2008), is particularly illuminating in this regard. When poverty is measured in the conventional way, as income poverty (having an income below 60 per cent of the median household income), they find that poverty is weakly related to other welfare problems, including loneliness. However, this changes considerably when poverty is measured in terms of deprivation of consumption. The deprivation poor are defined as those persons that are most unable to consume the goods and services that are considered part of the general, "normal" lifestyle in Sweden. Examples of deprivation are not being able to afford a car, to buy new clothes or to celebrate on special occasions, although one would like to have/do these things (a list of 36 consumption items was presented to the respondents). The deprivation poor were significantly lonelier than the income poor; compared to the non-poor nearly four times as many of the deprivation poor expressed feelings of

loneliness (Halleröd and Larsson, 2008: p. 19). Using a latent class technique, they find that about 10 percent of the Swedish population score high on a cluster of eight different welfare problems, including loneliness and several forms of physical and mental health problems, unemployment, deprivation poverty and lack of cash margin. However, low education was to a very limited extent related to loneliness, and did not cluster with other welfare problems.

In contrast to the latest finding, the analysis of Dalgard et al. (2007), based on the Norwegian Survey of Level of Living 2002, shows that low education is significantly associated with a low level of social support¹³ in multivariate analysis, especially among women.

Additional evidence on the relationship between social relations and socioeconomic resources can be found in studies of recipients of social assistance, a group known to face serious economic difficulties. Recent Norwegian studies have shown that they are troubled by a lack of social resources. Recipients of social assistance are considerably less trusting (Van der Wel et al., 2006; Hyggen, 2006), have less contact with friends and participate less frequently in organisations and voluntary work (Van der Wel et al., 2006). Hyggen (2006) finds that the lack of social capital does not in itself contribute to a greater risk of becoming a social assistance recipient in young adulthood, with the exception of being a single parent. However, family social capital in childhood is of importance; growing up in a broken family increases the risk (Hyggen, 2006).

Turning to recent studies outside of the Nordic context, a Dutch survey ("Social Isolation in the Netherlands") of four municipalities: two large cities (including Amsterdam) and two rural areas, is one of the most comprehensive studies of social isolation and loneliness to date (Hortulanus et al., 2006). Unfortunately this study, as most others, is only cross-sectional. Socio-economic status was one of the factors that contributed to the statistical "explanation" of loneliness. Another finding was that the percentage of socially isolated people was six times higher among persons with a low socio-economic status compared with persons of a high socio-economic status. The effect was independent of other socio-demographic factors. However, despite the relatively high correlation, the authors emphasise that social isolation cannot be reduced to structural variables and that "...social isolation is a relatively autonomous phenomenon" (Hortulanus et al., 2006: p. 57).

In an analysis of a smaller sub-sample of the original study (N=460), including a richer set of explanatory variables (demographic, personal, societal and socio-spatial), education still reduced the risk of social isolation, independently of all other factors (Hortulanus et al., 2006: p. 213). Of 8 demographic background factors, only degree of urbanisation and educational level had significant effects on the typology of social contact, while income was of minor importance.

In a national survey of older people 65+ in Great Britain, the possession of post-basic education was independently protective of loneliness (Victor et al., 2005). A meta-analysis of influences on loneliness in adults 60 years or older found that high income and education were significantly related to less loneliness, although not very strongly (Pinquart and Sörensen, 2001, $r=-0.17$ and -0.08 , respectively). There is, of course, the possibility that the effect of income is particularly strong among the elderly. Income is a resource that presumably makes it easier to maintain social contacts when the resources of health diminish. Also, as elders become more dependent on others, high income increases the ability to return support and pay for commercial or public service, thereby easing the burden on informal caregivers (Pinquart and Sörensen, 2001: p. 248). In short, income may help the elderly maintain the reciprocity of relationships.

Social negativity or undermining is a relatively new field of inquiry. This is also an aspect of social relationships that does not seem to be independent of the vertical distribution of resources. A nationally representative US survey found that (in bivariate analysis) those with incomes of less than

¹³ The "Oslo social support scale" was used, consisting of three items: number of confidants, the feeling of interest and concern from others, and the possibility of practical help from neighbours (Dalgard et al, 2007).

\$20,000 per year perceived more social negativity with spouses, relatives and friends compared to those with higher incomes (Bertera, 2005). Negativity with spouse and relatives was more strongly related to income than negativity with friends. This is consistent with other research showing how economic problems can strain the couple relationship (Kinnunen and Pulkkinen, 1998) and increase the risk of divorce (Kiernan and Mueller, 1998). The panel analysis of Halleröd and Bask (2008) shows that a latent index of multiple welfare disadvantages (including economic problems) increases the risk of partnership dissolution, and decreases the chance of singles entering a partnership.

The influence of health

What about the influence of other resources? Health has repeatedly been shown to have an effect on social networks and loneliness. According to Hortulanus et al., (2006), the socially isolated are considerably less healthy, both physically and mentally, than the socially competent. They do not find that health has an independent effect on social isolation in a multivariate analysis. However, good health seems to be included in one of the other significant factors (the experience of “protection”) in the multivariate analysis, and probably affects other factors indirectly (Hortulanus et al., 2006: pp. 205, 213). Fløtten (2006) finds that self-reported bad health influences the risks of having a weak personal network, being socially excluded and feeling lonely, net of other factors.

Mental health, especially depression, is associated with loneliness and social isolation according to a number of recent studies (cf. discussion in chapter 4.8). In the Dutch survey, a list of twenty items indicating depression (Zung depression items) correlated substantially with the De Jong Gierveld loneliness scale ($r=0.42$, Hortulanus et al, 2006: p. 109). In the same study a correlation with network size was also found, but much smaller ($r=-0.14$). In the Norwegian NORLAG study (Thorsen and Blekesaune, 2006), both physical and mental health were related to loneliness, but the correlation with mental health was the strongest (-0.25 in the multivariate analysis). A single item, direct question was used as the measure of loneliness, similar to paper I. How this association should be understood is far from clear, however (see the discussion in chapter 4).

The importance of arenas

Some recent research confirms the importance of arenas where people can meet and form/reform contacts. According to Hortulanus et al. (2006), “societal participation” is a breeding ground for personal networks. They find that different forms of societal participation decrease the likelihood of social isolation. Societal participation includes paid labour and studying, club life, informal care, volunteer work, attendance of sports and cultural events, and participation in informal groups (not including family and friends).

One of the results reported in paper I, was that unemployment was related to one of the indicators of social isolation among men, and to the risk of loneliness among women. However, according to the analysis of Fløtten (2006), unemployment is not an independent risk factor for social isolation. She also finds that unemployment and being outside the workforce are not related to loneliness, controlling for access to social support and friendship contact. In another Norwegian study, Thorsen and Blekesaune (2006) report that the correlation between loneliness and employment becomes close to zero when mental and physical health are controlled for.

It is difficult to ascertain whether these findings are in contradiction to mine, since neither Fløtten nor Thorsen and Blekesaune consider the possible interaction effects with gender. In a bivariate analysis, both studies find that the unemployed more frequently expressed feelings of loneliness than the employed; the big question is whether this empirical pattern can be ascribed to the experience of unemployment as such. It could be argued that the correlation is spurious and due to selection effects. Health problems influence both the risk of unemployment and loneliness. However, unemployment is still significantly correlated with loneliness among women when the mental and physical health variables are included in the regression analysis (results not shown in paper I). Fløtten, although not confirming the independent effect of unemployment on loneliness, does find that unemployment and

being outside the workforce heightens the risk of social exclusion more broadly defined (Fløtten, 2006: p. 249).

In a Danish study, unemployment was in general not related to a higher risk of social isolation. It was shown that the unemployed compensate for their loss of contact with colleagues by increasing the frequency of contact with friends. Considering loneliness, some unemployed became lonelier after they lost their job, but nearly as many became less lonely (Goul Andersen, 2003: pp. 182-183). However, these empirical relationships vary with national context. In some countries (for example France and Germany), long-term unemployment leads to less contact with friends and relatives outside the household, according to multivariate analyses (Paugam and Russel, 2000: pp. 253-254). One of the more consistent findings across different countries relates to the effect of unemployment on a particular source of weak ties: the long-term unemployed are less likely than persons with stable jobs to participate in clubs or organisations (Paugam and Russel, 2000: pp. 259-260).

My finding that there is no independent effect of organisational participation on the risk of feeling lonely is replicated by Thorsen and Blekesaune (2006).

The use of different measures of loneliness could explain some of the inconsistencies in results. As mentioned in chapter 4.8, the single item, global measures of loneliness (used in The Level of Living Surveys and also by Fløtten, 2006, and Thorsen and Blekesaune, 2006) have a strong correlation with emotional loneliness, and a much weaker correlation with measures of social loneliness. Hortulanus et al. (2006) uses De Jong Gierveld Loneliness Scale, explicitly intended to measure both emotional and social loneliness. It is reasonable to assume that employment, participation in voluntary organisations etc. have a stronger influence on the perceived quantity of contacts, such as network size, than on the more emotional, qualitative aspects (cf. chapter 2). Consistent with this, a study of older people in Italy and the Netherlands, using the De Jong Gierveld Scale, found a weak, loneliness-reducing effect of being active in organizations and doing voluntary work (Van Tilburg et al., 1998).

The influence of neighbourly contacts on loneliness was not given much attention in paper I. In light of recent research on social factors influencing loneliness among the elderly, this may have been a shortcoming. According to a meta-analysis of a large number of studies, neighbourly contact and friendship contact are of equal importance, and more important than contact with adult children (Pinquart and Sörensen, 2001). The equal importance of neighbours and friends for the experience of loneliness is confirmed in the Norwegian case by Thorsen and Blekesaune (2006, age group 40-79). On the other hand, neither neighbourly contacts nor friendship contacts were related to loneliness in a recent nationwide study of elderly 65+ in Great Britain (Victor et al., 2005).

Concluding comments

All in all, the accumulated evidence of recent research seems mostly to confirm the picture given by paper I, that social integration on the one hand, and access to arenas and possession of economic, educational and health-related resources on the other, is empirically associated. This applies to both the objective and the subjective dimensions.

Erik Allardt's "social law", claiming that social and economic welfare dimensions are almost completely unrelated phenomena (Allardt, 1975, see chapter 5), should indeed be questioned, as Dahl et al. (2008) suggest. Recent Scandinavian research has confirmed that welfare problems accumulate in certain groups of the population, and that social disintegration/lack of social capital is part of the accumulation process (Nermo and Stern, 2001; Van der Wel et al., 2006; Hyggen, 2006; Halleröd and Larsson, 2008). I have already mentioned the work of Halleröd and Larsson (2008), who find that about 10 percent of the population score high on a cluster of eight different welfare problems, including loneliness. A similar study, using panel data that cover the period from 1979 to 2003, confirms the general picture of interconnected welfare disadvantages, related to the labour market, health, psychological distress, low income and economic problems (Halleröd and Bask, 2008). The panel analysis indicated that these welfare problems accumulated over time, and influenced the

forming and dissolution of partnerships. An earlier, Swedish study (Tåhlin, 1989), showing how leisure time activities are formed by access to economic resources and characteristics of the work situation, also contradicts the “social law” of Allardt.

One of the advantages of my analysis is that it is done separately for men and women (cf. chapter 5). Neither in the recent Norwegian studies, nor in the otherwise very comprehensive study by Hortulanus et al., are interaction effects with gender given much attention. Failing to consider this could lead to important qualifications of the findings left unnoticed. One of the differences between men and women is that women make more varied use of their network. Men more exclusively depend on their spouse for social support and advice, while women use friends and colleagues to a larger extent (Barstad, 2004: p. 23). This means that the loneliness of women is influenced by a wider set of social characteristics than the loneliness of men (supported by the results of paper I). In addition, there is the social desirability bias, a bias that might influence men more than women, also justifying attention to possible gender differences in results (cf. the discussion in chapter 6).

The most telling weakness of research in this field is perhaps the lack of longitudinal surveys. The research cited is mostly cross-sectional. Take, for example, the meta-analysis of Pinquart and Sörensen (2001), which only includes cross-sectional surveys. Thus, the social processes underlying these associations are still unclear. The mechanism suggested in paper I, inspired by the work of Bourdieu, that the formation and reformation of social bonds is a form of work that requires resources, of which ultimately economic resources are the most important, constitutes an interesting hypothesis. This hypothesis, however, is difficult to substantiate without access to other types of data than those given by cross-sectional surveys.

Some evidence from panel analysis is beginning to accumulate (in the Nordic context Nermo and Stern, 2001; Halleröd and Bask, 2008; Dahl et al., 2008), but these studies are also ripe with problems of interpretation. For example, Nermo and Stern (2001) report that a loss of social support from 1991 to 2000 was related to an increased risk of experiencing economic problems, even controlling for factors like unemployment, material resources, dissolution of partnerships and the level of economic problems in 1991. This finding indicates a causal process in the opposite direction of the hypothesis stated in paper I. Reciprocal influences are very likely (also implicated by the theory of Bourdieu), but impossible to demonstrate convincingly without access to panel data (unfortunately, Nermo and Stern do not consider reverse causation, i.e. how economic problems influence the risk of losing social support). As discussed by Nermo and Stern, their finding is open to several competing interpretations. Is there some third, unaccounted for, personality or other factor, influencing both the loss of social support and the frequency of economic problems? Using a fixed effects approach (as in paper IV), the influence of stable personality characteristics could be ruled out. However, the question remains of precisely how the socioeconomic factors are related to social integration. In addition to more use of longitudinal data and a fixed-effects approach, allowing for reciprocal influences, there is clearly also a need for better measurements of both the dependent and independent variables, as indicated by the preceding discussion. Finally, there is the need of a life course perspective, as shown by for example Halleröd and Bask (2008), and by Hyggen (2006) in the case of social assistance recipients. The findings by Pinquart and Sörensen (2001) point to the possibility of economic resources being particularly important for the social relations of the disabled and the elderly, serving as resources for mobility and reciprocity.

8.2 Trends of social integration: Increasing social isolation and loneliness?

Contentions to the fact that social isolation and loneliness are increasing are commonplace, both in academic texts and in popular culture. For example, in their otherwise well-researched book on social isolation, Hortulanus et al. (2006: p. xvii) states that “...there are reasons to believe that in modern society more and more people are becoming socially isolated”. However, no empirical evidence is

presented substantiating this claim in the book. Others have stated that loneliness is an “epidemic” in modern society (Killeen, 1998), again without presenting any empirical evidence.

The contribution of papers I and III is to place a big question mark behind these claims. There is no overall rise in the level of social isolation and loneliness. In this section I will further substantiate this finding by delving more deeply into how this conclusion fits with other research (omitted from paper III, due to space limitations), especially concerning the subjective dimensions of social integration. I will also show how the conclusion fits with research on the influence of the welfare state. Lastly I will address some of the exceptions to the general conclusion, and discuss the evidence concerning the alleged instability of social ties and the problems of comparing my findings for Norway with those of the US.

Additional evidence

As documented in paper III, a number of research papers and statistical sources give a rather positive impression of trends of social integration in the Nordic countries. In addition to the research cited in paper III, other evidence is available. Concerning social integration in Sweden, the Katrineholm “middletown” study found that people in this small Swedish town became more socially active in the period from 1950 to 1988; the inhabitants became members of more associations and had more frequent interaction with neighbours, friends and co-workers (Perlinski, 1990. For other data on favourable trends in Swedish social capital, see Rothstein, 2001). In all Nordic countries repeated surveys pointed to increasingly thriving friendships during the 1970s and 1980s (Melkas, 1993). The development in Finland was particularly dramatic: in the period from 1972 to 1986 the percentage without a close friend declined from 26 to 6 (Melkas, 1993: p. 339).

According to recent, nationally representative data on voluntary work in Norway, an increasing share of the population does voluntary work for non-profit organisations: 52 per cent in 1997 and 58 per cent in 2004. However, on average each person works fewer hours, making the total number of voluntary work hours slightly lower than in 1997 (Sivesind, 2007). Interestingly, while the data presented in paper III indicates a decline of organisational activity among the young, the new data on voluntary activity on the contrary shows an increase in the age group 16-24. The share of the young doing voluntary work was 46 per cent in 1997 and 51 per cent in 2004. On the other hand, the mean number of hours worked went down, and more so among the young than in other age groups (Sivesind, 2007: p. 18). Voluntary work is defined as work done for voluntary organisations, either for free or for a symbolic pay. The difference in trends implies that voluntary work is becoming more loosely connected to formal membership (Sivesind, 2007: p. 31); it also implies that the questions posed in the Level of Living Surveys could overestimate the amount of decline. This is a development that seems to be in line with some of the conclusions of Wuthnow (1998), that new forms of civic involvement are developing, characterised by “loose connections”. Organisational activities are becoming more fluid and ad-hoc. For most people, civic involvement in the 1990s is less defined in terms of membership and more in terms of accomplishments. Organisational loyalty as such becomes irrelevant (Wuthnow, 1998).

Subjective indicators: Trust and tolerance

Trust is given much attention by Putnam and others as a form of social capital. Pamela Paxton argues that trust is a “...good proxy for positive, reciprocal ties in general” at the national level (Paxton, 1999: p. 98). According to the World Value Surveys, from 1982 to 1996 there was a slight increase in the percentage of people who expressed trusting attitudes in Norway. This overall trend conceals a particularly favourable development for women. The percentage of women who say that most people can be trusted increased from 55 to 66, while the percentage of trusting men became slightly lower. The trend for both men and women was in stark contrast to the falling tendency in the United States, during approximately the same time period¹⁴. Recently, data from the new 2006 WVS survey in

¹⁴ The source is data from the World Value Surveys, downloaded from <http://nds.umdl.umich.edu/cgi/s/sda/hsda?harcWEVS+wevs>.

Norway has become available. The share of the population expressing a trusting attitude was the same in 2006 as in 1996: 65 per cent (Hellevik, 2008).

Tolerance is another aspect of social relations, and can be seen as a form of social capital that furthers social integration. According to Putnam, attitudes in the United States have generally become more tolerant, and tolerance goes hand in hand with measures of social capital (Putnam, 2000: p. 356). An alternative would be to see tolerance as a form of social capital. When person A has a tolerant and accepting attitude towards B (and vice versa), social integration and cooperation for mutual benefit is easier to achieve. For instance, increasingly tolerant and accepting attitudes towards homosexuals have probably contributed to less stigmatisation and better integration of this group in society. Indeed, Norwegian studies both document more liberal attitudes and an improvement in the social integration of homosexuals (Hegna et al., 1999). However, there are countertrends concerning tolerance. Attitudes towards persons who are emotionally unstable and have a criminal record are rather less tolerant than before, in terms of having them as neighbours (Listhaug et al. 1983, 1997; Listhaug and Huseby, 1992).

The measures of tolerance cited here could also be seen as indicating more indifference and a lack of caring. This could be so; the decline of explicitly negative attitudes towards some outsider groups would still ease their social integration.

Loneliness

Unfortunately, there are very few studies, in Norway and elsewhere, that can tell us anything about trends in loneliness. To the extent that such data exist, they are difficult to interpret, especially when gathered in face-to-face interviews. Admitting to feelings of loneliness in interviews is influenced by social desirability, and we know little of how the social desirability bias has changed over time. Also, as pointed out by Wood (1986), the meaning of the term “loneliness” is far from clear. Seeing loneliness from a social constructionist viewpoint, she claims that the construction of loneliness stories has changed during the past 50 years, from stories emphasising extreme physical or psychological isolation to “ordinary” stories, seeing loneliness as a part of everyday, normal life. The meaning of the term has shifted from being alone as a physical state “...to a feeling associated with social relationships in the abstract” (Wood, 1986: p. 193).

With these problems in mind, I will briefly review the scattered findings concerning loneliness, firstly in Norway.

According to the Norwegian Value Surveys 1982 and 1990, there was a slight increase in the share of the population that “felt very lonely or separate from others” (from 10 to 13 per cent, see Barstad, 1993: p. 346). Evidence for a later period is found in the Level of Living Surveys 1998, 2002 and 2005. These surveys contain the HSCL-25 measure of mental health. One of the 25 items is feelings of loneliness, i.e. how distressed the respondents were by feelings of loneliness during the last 2 weeks before the interview. The questions are posed in a postal questionnaire, and not by the interviewer. The answers to this question are of course influenced by the “mental health” context of the list, but since this influence presumably remains the same across surveys this data source could tell us something about trends in feelings of loneliness. Unfortunately, the time period is short. There is little change in the prevalence of loneliness during these years. Six per cent of the population aged 16-79 was very distressed by loneliness in 1998, compared to five per cent in 2005. Including the “somewhat” distressed group, the percentage that expressed feelings of loneliness in the 2-week period fell from 26 in 1998 to 25 in 2002 and 23 in 2005¹⁵.

A slightly longer time frame, 1992-2002, is used in an analysis of two nationally representative youth surveys (Hegna, 2005, questions posed in a questionnaire). The share of Norwegian youth (aged 13-

¹⁵ My own calculations based on the Surveys of Level of Living.

19) reporting feelings of loneliness became significantly lower from 1992 to 2002; there was also an increase in the share that felt accepted by other youth.

All in all, in the case of Norway there is little indication of an increasing level of loneliness, although feelings of loneliness certainly seem to be widespread. The relevant data cover a short time period, but these results are in accordance with the other subjective indicators cited above, not least the trends in generalised trust over a 25-year period.

What about the international scene? Paper III cites surveys in Germany (Bulmahn, 2000), Great Britain (Victor et al., 2005) and Denmark (Andersen, 2003), covering a period of up to 55 years (Victor et al., 2002, 2005), concluding that feelings of loneliness or “being alone without wanting to” (Andersen, 2003) have not increased in frequency. The same has been reported for Spain, in the time period from 1971 to 1991 (cited in Pérez-Díaz, 2002: p. 273). In West Germany the share who often “...feel lonely, all alone” fell from 19 per cent in 1949 to 7 per cent in 1980 (Glatzer et al., 1992: p. 101).

A qualification should be mentioned. Victor et al. (2005) compares the results from a survey of persons aged 65 or more, undertaken in Britain 2000/2001, with the results from three “classical” surveys in England between 1945 and 1960 (Victor et al., 2002). Not all of these studies were nationally representative. The oldest, from 1945, was done in Wolverhampton. Victor et al. (2005) find that the extent of severe loneliness has not changed. However, there are also fewer people than before that say they are “never lonely”. A larger percentage of the elderly population reported to be lonely “sometimes” in 2000/2001 than in the earlier studies.

Depression as a proxy for loneliness

In the HSCL-25 measurement instrument, feelings of loneliness are considered a symptom of depression (as in several other depression scales). This is a presumption corroborated by factor analytic techniques. Some studies have found that loneliness and depression are separable constructs, but substantially correlated (cf. chapter 4.8). Although far from identical concepts, an increase in depression would suggest the likelihood of an increase in loneliness as well. An indirect approach to the question of time trends in loneliness would therefore be to look for surveys covering trends in the incidence and prevalence of depression.

In the case of Norway, there was no overall increase in depression from 1990 to 2001, according to a study using a large, randomly selected population from two locations, including Oslo (Sandanger et al., 2007). However, there was an increase of symptoms among young men, and a decrease in the group of young women (18-34 years old). A study in the most northern county of Norway, Finnmark, found that the prevalence of depression decreased significantly over a 9-year period, from 1987/88 to 1996/97 (Nilsen et al., 2004).

There is commonly claimed to have been a steep increase in levels of depression during the post-war period in rich, Western countries (Layard, 2005, to take a recent example). However, these claims have primarily been based on the estimated, cumulative lifetime prevalence of depression in cross-sectional surveys, by relying on retrospective recall of earlier depressive episodes. There is reason to believe that earlier episodes of depression are forgotten (Kruijshaar et al., 2005; Eaton et al., 2007: p. 182). A few other studies have instead relied on interviewing persons at different times during the post-war period about their current level of depression, thus making long-term recall unnecessary. In general, these studies do *not* show the presumed increase in the prevalence of depression, at least not during the last 30-35 years (Murphy et al., 2000; Meertens et al., 2003; Murphy et al., 2004; Costello et al., 2006; Nilsson et al., 2007). An exception is Compton et al. (2006), covering the US experience from 1991-1992 to 2001-2002. Comparing nationwide survey data on symptoms of depression (including feelings of loneliness) from 1975 to 1996, a Dutch study found that the reported level of depressive symptoms fluctuated considerably during the period, but with no long-term trend (Meertens et al., 2003). There were interesting differences between sub-groups of the population, though, with

divorced people becoming progressively less likely to suffer from depressive symptoms compared to those married, whereas those never married became more likely to suffer from depressive symptoms. What about children and youth? Contrary to common belief, a recent meta-analysis of 26 studies found no evidence for an increased prevalence of child or adolescent depression over the last 30 years (Costello et al., 2006).

There are problems with some of these surveys, concerning for example the comparability of methods and how representative they are. The attitude of the population towards reporting psychiatric symptoms may have changed, which could affect the results in unpredictable ways. Despite these considerations, the weight of the evidence clearly suggests stability rather than increase of depression during the last 30-35 years, which is consistent with the view that feelings of loneliness have not become more widespread.

Qualitative studies

While qualitative studies cannot in themselves tell us whether social isolation is becoming more or less prevalent, in-depth studies can still provide us with indications of the general state of social relations today, beyond the crude and simple survey questions. One such interesting qualitative study has been done by Spencer and Pahl (2006), based on seventy in-depth interviews with persons from different locations in Great Britain. Their conclusions are in general very positive: "...far from being isolated, anomic or narcissistically self-focused, people may still feel connected and committed to others, through their personal communities, in a significant and meaningful way" (Spencer and Pahl, 2006: p. 209). On the basis of the interviews they particularly point to the importance of friendships and friend-like relationships, which "...can provide an important form of social glue, holding personal communities together" (p. 211). They find that friendships are very diverse and varied, ranging from the strongly committed soulmates sharing "everything" to casual and short-lived friendships. "It is time for friendship to take its rightful place" (Spencer and Pahl, 2006: p. 211). It is interesting that the importance of friendship is borne out from both qualitative studies and the large-scale survey research exemplified by paper III.

The importance of the welfare state

There is little support for the contention that a generous welfare state generally erodes the level of support and community. The results of article I and III are in accordance with that view. The social capital literature contains many examples of benign consequences of governmental interventions. Rothstein (2001) points to the Swedish government's support for study circles as an example of "creating social capital from the above". Hall (1999) points to the importance of educational reform in post-war Britain, which has contributed to a substantially higher level of education, particularly for women. Education, in turn, fosters civic engagement. Another example is incentives given for union membership in some countries (like Sweden), which contributes to making the workplace an arena for civic engagement and discussions.

An interesting approach to the beneficial effects of the welfare state on social relations is the concept of "the temporal welfare state". An analysis of the Finnish welfare state concludes that the state interventions do much to neutralise the "time-penalties" that would otherwise come from parenthood and paid employment (Goodin et al., 2004).

It is of particular interest to compare the liberal welfare state regime and the social-democratic regime (Esping-Andersen, 1990, 1999), which are assumed to be at opposite poles regarding state intervention. Kääriäinen and Lehtonen (2006) generally find few significant differences related to social networks, controlling for individual level characteristics (gender, age, educational level, marital status, employment status and attendance at religious services). The only significant difference is found for generalised trust, with a significantly higher level of trust in the social-democratic welfare regime. One of the most interesting findings of this study is that although the need for social support in liberal welfare regimes presumably is higher, due to a lower amount of public, subsidised services, there is no significant difference in the amount of support actually given. In a similar analysis of 23

European countries, Van Oorschot and Arts (2005) relates eight measures of social capital to a welfare state typology, and again find little evidence of welfare state interventions “crowding out” social capital. In addition to a welfare state typology, they also include welfare effort (measured as total social spending in per cent of the GDP) in the multivariate, multi-level analysis. Independently of other contextual variables (including the welfare regime typology and the size of GDP) and individual level characteristics, welfare effort was significantly related to increased organisational participation, family contact and concern, friendship contact and trust in institutions. On the other hand, welfare effort was also associated with less political engagement, lower civic commitment and morality and, surprisingly, lower interpersonal trust. In the last case, the effect was the exact opposite of the welfare regime effect, again with persons residing in the Scandinavian welfare states being the most trustful. A higher GDP was also related to a higher level of social capital in most cases.

In paper III, I refer to James Coleman, who claimed that when persons are made less *dependent* on one another, by affluence, government aid or other factors, the result is a depletion of social capital. “When...persons need each other less, less social capital is generated” (Coleman, 1990: p. 321). In general, the evidence seems to point in exactly the opposite direction, although there are exceptions. Persons living in rich countries, with a high social spending level, tend to have more, and not less, social capital.

Other research indicates that when persons are very dependent on one another, for instance for economic survival, there is more insecurity and less trust. “The more dependent that people are on each other...the higher the tension and fear of being let down” (Jamieson, 1998: p. 90). An ethnographic study of a small Norwegian, local community, where people depended on the community members for help in doing a number of practical tasks, found a rather instrumental outlook on social relations. People had to be very careful when dealing with others in the community; there was at times a “competition in modesty”, trying not to make enemies and loose support. Feelings of loneliness and a lack of friendship seemed prevalent (Larsen, 1984).

The exceptions

The results of paper III do not uniformly show stability or increase of social integration. The percentage of the population living alone has increased, owing to a large part the growing dissolution rate of partnerships. As I show in other papers, the consequences of this form of social disintegration are on average more serious for mental health and loneliness than other forms. I will discuss the consequences of the “living alone” trend later. In addition there has been a decline in the share of the most organisationally active part of the population. The interpretation of this trend is not straightforward, however, since (as noted above) voluntary work has increased.

Additionally, trends in the 1990s differ from the preceding decades. This is most clearly seen in the Time Use Surveys; there was a notable decrease of time used for social purposes from 1990 to 2000. There are some methodological problems related to the comparison of these diary studies. In 1980, only primary activities were recorded, while in 1990 parallel activities could be recorded on one of the two consecutive diary days. In 2000, primary and parallel activities could be recorded for both days, as was the case in 1971. The possibility of recording parallel activities seems to affect the recording of main activities, especially fuzzy and indistinct activities like television viewing and socialising (Kitterød, 2001). In this respect, the 1971 and 2000 surveys are the most comparable of these surveys.

Still, there is little doubt that there was a downward trend in face-to-face interaction during the 1990s. In the diaries of 1990 and 2000, the respondents were asked to indicate, for each time interval, whether they were together with someone or were alone. The population spent 1 hour and 4 minutes more alone on an average day in 2000 than in 1990. This change can be seen in all age groups, among one-person households as well as other households (Vaage, 2002). However, persons defined as being alone can be engaged in phone conversations or other forms of mediated communication.

The local social network seems to be remarkably resilient. As many people in 2004 as in 1980 were on visiting terms with families in their neighbourhood. This gives, however, a somewhat too rosy picture of what has happened to the locally-based social network. The Time Use Survey conducted by Statistics Norway shows that people spent less time with their neighbours in 2000 than twenty years earlier, and visited them less often (Vaage, 2002). The difference in results is related to the divergent concepts of neighbour and neighbourhood. A “neighbour” is probably thought of as some one who lives next door or in the same building. In contrast, a “neighbourhood” can be defined more broadly, and encompass friends living within a reasonable walking distance from the respondent.

Temporary ties?

In chapter 2, I cited Baumeister and Leary (1995), who emphasised that to satisfy "the need to belong", temporal stability and endurance of social relations was a necessary condition. It is precisely on this point that several commentators have seen the most worrisome trends. Pescosolido and Rubin (2000) was cited in chapter 3, on the "...temporary, ephemeral, and contingent" social ties that are characteristic of the postmodern era, creating a greater potential for alienation and isolation. As shown, Wellman claims that a characteristic of “networked individualism” is that many relationships are transitory in nature. Wellman sees this in light of frequent career changes, reminiscent of the claim by Beck and Beck-Gernsheim, that there is a contradiction between the mobility demands of the labour market and social relations.

So what is the empirical support for these claims? I have several times mentioned the increasing rate of partnership dissolutions, which obviously supports the “temporary ties” thesis. Still, I would like to mention that conclusions in this regard depend somewhat on choice of indicator and time frame. Using the really long time frame of Pescosolido and Rubin, it can in fact be argued that family relations are considerably *less* temporary in the postmodern than in the premodern and modern period. In Sweden, an average marriage in the 18th century lasted for 15 years, in the beginning of the 20th century 23 years and in our contemporary time 49 years¹⁶. “Never before have so many been married so long to the same person as today” (Sundström et al., 2006: p. 20. Own translation from Swedish). This, of course, primarily reflects the tremendous increase in longevity. Is it a trivial point? Perhaps not, if increased longevity is seen as an integral part of the scientific achievements and knowledge expansion of modern society, as one of the main triumphs of modernity. On the other hand, what is missing here is that increased longevity presumably also means that people who live without a partner live considerably more years alone than in earlier time periods. Additionally, all this is bound to change when today's older generations are replaced by the younger cohorts, who cohabit more, marry later and have much higher divorce rates.

Less is known of the temporal stability concerning other social relations. However, studies of residential stability and job stability give us a clue. Do they confirm the image of precariousness and lack of stability in social relations? Generally, the answer seems to be no, at least in the case of Norway. Geographical mobility in Norway has fluctuated in the course of the last 40 years, but not consistently up or down. Neither moves between counties nor moves between municipalities were more frequent in the 2001-2005 period than in 1956-1960. Looking at moves between the counties, there was an increase from the 1950s to the beginning of the 1970s, and then a sizeable decrease to the first half of the 1990s, before a new increase started (Statistics Norway, 2007). In the US, residential mobility has declined in the post-war period (Putnam, 2000). Neither is there evidence of a consistent increase of labour market mobility in Norway during the last 50 years. From 1951 to 1983 job stability was fairly stable (Engelstad, 1986: p. 93). According to Nilsen (2006), average job stability was largely the same in the beginning of the 1980s as in 2003. The decreasing job stability from 1995 to 2003 does not seem to be part of a long-term trend. Also Dale-Olsen (2006) finds evidence of an increasing mobility in the Norwegian labour market from the mid 1990s and up to 2004 (Dale-Olsen,

¹⁶ In Sweden, 1960, 15 per cent of the cohort that married 50 years earlier was still married. In 2000 28 per cent of the cohort that married 50 years earlier was still married (Sundström, 2002). The same trend is very likely also found in Norway.

2006). The mobility of workers is lower in Norway than in many other countries, particularly in the US (Dale-Olsen and Rønningen, 2000).

There is evidence from other countries that also questions the often held notion of employment becoming increasingly precarious and insecure. An analysis of changes in long-term employment in the European Union found the opposite trend. There were significant increases of long-term employment (i.e. being 10 years or more with the same employer) in the EU member states from 1992 to 2002 (Doogan, 2005). A study of the West-German experience from 1976 to 1995 also finds an increase of job stability and no increase in labour market mobility (Erlinghagen and Knuth, 2004). Fevre (2007) reviews the evidence for an “age of insecurity” in the labour market, and finds little support for this contention. The share of temporary workers has declined in several countries (including the US), and average job tenure has not decreased. However, there is some ambiguity in the findings (see the review by Erlinghagen and Knuth, 2004: p. 50). According to Gregg and Wadsworth (2002), the majority of workers in Great Britain experienced lower job stability from 1975 to 2000. The exception was women with dependent children, where job stability had risen. They see this in relation to the introduction and strengthening of maternity leave during the period (Gregg and Wadsworth, 2002: p. 132).

The principal empirical support for the “temporary ties” thesis seems to be found, then, first and foremost in the area of partnership dissolutions. There is also, as mentioned, some evidence of organisational activities becoming more fluid and ad-hoc, with less emphasis than before on organisational loyalty. Finally, in the last decades there has been more migration across national borders. In Norway, migration into and out of the country has increased since the end of the 1960s (Statistics Norway, 2008).

Really different from the US?

Paper III makes a point of comparing the Norwegian trend of social integration with that of the US, especially as portrayed by Putnam (2000). Due to the lack of comparable data showing time trends in both countries, it is difficult to conclude with any certainty about the real magnitude of the differences. Some telling criticisms have been directed at the work of Putnam, indicating that the thesis of decline has been overstated (for example Thomson, 2005; Fischer, 2005). Consequently, we must consider the possibility that differences between Norway and the US are smaller than what they seem. The work by McPherson et al. (2006), cited in paper III, is one of the few to show an actual increase of social isolation. This seems to be in stark contrast to the Nordic experience. Social isolation was measured as a lack of persons to discuss important matters with. Since this measure has not been used in a Nordic setting, there are no comparable data. The definition of social isolation used by McPherson et al. is rather narrow. Another American study asked the respondent about persons he/she was “very close to” in different ways, and found that the average American had a much higher, average number of “core ties” in 2004 than the number reported by McPherson et al. (Boase et al., 2006: p. 6-7). A problem with this particular study, however, is its very low response rate (35 per cent). As McPherson et al. note, their findings are consistent with those of Putnam (2000). Their conclusions are also consistent with the downward trend in generalised trust cited above. It is first and foremost the bridging ties, found in organisations and in the neighbourhood that have been lost; precisely the kind of ties that are the most likely to be weakened if the level of generalized trust falls.

As mentioned in paper III, the seemingly different development for women in the US and Norway is particularly striking. The divergent trends of generalised trust according to the World Value Surveys indicate that this difference may be more than just an artefact of differing methods. Andersen et al. (2006) present evidence supporting the case of a female “American exceptionalism”. Comparing civic association activity in Canada, the Netherlands, the United Kingdom and the United States, they conclude that there has been a decline of associational activity among US women, in contrast to the relative stability of activity in the other countries. On the basis of the results, they claim that “...the larger time commitment American women now make to paid work, combined with their increased time for childcare, could be the principal explanation behind the decline in civic association activity of

Americans in recent decades, and the one factor that most clearly distinguishes the United States from comparable democratic societies" (Andersen et al, 2006: p. 396). They go on to suggest that one of the structural causes of the American exceptionalism is the continuing lower level of state support for childcare compared to the other three countries, as well as fewer restrictions on working hours.

An indication of how different the levels of social integration actually are comes from a survey comparing variables related to social integration in 21 countries (Kääriäinen and Lehtonen, 2006). The study is based on ISSP (International Social Survey Programme) 2001. According to this study, Norway had a slightly higher score on bonding ties (frequency of visits with family and friends, and number of close friends) than the US, but the difference was not statistically significant. The total score for organisational participation showed that Norway had a significantly higher level of participation. The actual giving of different forms of social support was on the other hand higher in the US. Finally, the level of generalised trust was highest in Norway. These findings indicate that although trends may have been different, both the strength of bonding relationships and the level of social support in the US are on par with Norway. It should be emphasised that a greater level of social support does not necessarily mean that Norwegians are less willing to be supportive. The greater level of support in the US could simply reflect a greater need, given the lower level of state support and social service (as mentioned earlier, in general this study failed to find significant differences between the liberal and social-democratic welfare regimes in terms of social support).

8.3 The welfare consequences of social integration

A common thread through three of the four papers is the centrality of partnerships, of marriage and cohabitation. Paper I shows how the lack of a partner strongly affects the risk of loneliness, not least among men. Paper II shows that a higher rate of annual separations is linked to higher suicide rates on the aggregate national level. The effect is stronger for men. Lastly, the results of paper IV show how the dissolution of marriages and cohabitations leads to higher levels of anxiety and depression. In this case, the differences between men and women are insignificant, but men experience more distress when cohabitations are dissolved than women.

The estimated effects of dissolving marriages are based on two types of longitudinal data, aggregate and individual. This suggests that the effects are of a causal nature. Using the appropriate statistical techniques for these kinds of data, there is little risk of a permanent selection bias. However, the results may still be biased if important time varying variables are omitted (a problem I will return to).

The impact of marriage/partnership dissolution is much stronger in the short term than in the long term. As shown in paper II, only separations, not divorces, are linked to increased suicide rates in the population as a whole. In paper IV, I find that already in the first year following dissolution there is a clear reduction of the distress level, and two or more years after the dissolution, the level of distress is not significantly different from the level of distress two years or more before the dissolution. The results of paper II and IV therefore support the crisis model of marital dissolution rather than a permanent strain model.

The centrality of marriage and partnership is supported by a range of other research. Marriage is "...the most critical social support available in human relationships" (Veroff et al., 1981: p. 493). The partner is the closest confidant (Glatzer et al., 1992) and the most frequently mentioned source of giving comfort (Hortulanus et al, 2006: p. 75). The importance of considering the temporal structure of the dissolution process is supported by research showing that separated persons have much higher levels of depression (Hopcroft and Bradley, 2007) and higher suicide rates (Gjertsen, 2003) than divorcees.

Other forms of social integration also have consequences for mental health and loneliness. Paper I showed that unemployment and being weakly related to the labour market was associated with

loneliness among women. In paper IV, employment was related to a somewhat lessened risk of anxiety and depression, statistically significant only for men. However, at the aggregate level unemployment was not related to higher suicide rates for any gender.

A number of longitudinal studies show that unemployment has a negative effect on mental health and other indices of well-being (McKee-Ryan et al., 2005), but a higher risk of social isolation does not seem to be the primary mediating factor. In Denmark the most important factor is the worsened economic situation following unemployment (Goul Andersen, 2003: p. 206). This is confirmed in a recent meta-analytical review: financial strain is one of the strongest correlates of mental health during unemployment (McKee-Ryan et al., 2005).

Unemployment could influence suicide rates and mental health indirectly through influencing the risk of separation and divorce. This possibility is not considered in the papers, where only the direct effects are estimated. Unemployment is shown to increase the risk of divorce in several studies (Kiernan and Mueller, 1998; Lyngstad 2007: p. 12).

All in all, it seems reasonable to expect family status to be more closely related to loneliness and suicidal behaviour than employment. However, the lack of an aggregate relationship between suicide rates and unemployment does not necessarily translate to the individual level. As underlined in paper III, drinking seems to decrease in bad times, and drinking is related to a higher suicide risk. I found no effect of the alcohol consumption level, but there is reason to believe that the alcohol variable does not fully capture the real changes in alcohol consumption (as discussed in paper II).

Can social disintegration explain the “welfare paradox?”

The evidence of paper I and III indicate that in general, there has been no increase of social disintegration, isolation and loneliness. Does this mean that social disintegration cannot explain what I earlier (chapter 1) termed the “welfare paradox”? Looking at suicides, it might seem so. The trend of the 1980s was a rapid increase of the suicide rate, while the level of social integration was stable or increased, according to most indicators. However, family integration at the household level has clearly been weakened, as evidenced by the growing number of partnership dissolutions, the declining rate of marriages and the increasing share of people living alone. According to the results presented in paper II, this form of social disintegration is a key to understanding the rising suicide rates of post-war Norway. While there has been an increase in intimate friendships, it is doubtful whether friendship can replace the loss of a partner when it comes to the experience of emotional loneliness (Stroebe et al., 1996; Hortulanus et al., 2006: p. 33). My finding in paper I was that the lack of a partner was more important for the experience of loneliness than the lack of other close relations, in particular among men.

The disintegration of the family at the household level therefore seems to be one of the reasons why increasing national wealth does not decrease suicides. As shown in paper II, GNP per capita did not in itself have a significant effect on the suicide rates (with the exception of young men in the 1970-2004 period, where the estimated effect was negative). Partly as a consequence of employment opportunities associated with economic growth (South, 2001; Kalmijn et al., 2004), women in particular have become able to break out of authoritarian and less satisfactory marriages. Many studies, although far from all, support the independence effect: a higher income for the wife increases the divorce risk. This has also been shown in the case of Norway (Lyngstad, 2007).

The trends of social integration in Norway therefore seem to have some paradoxical features. On the one hand, the most decisive increase of social integration concerns the integration of women into the work force. There is reason to believe that this integration has had a beneficial effect on the mental health of women (cf. Burton, 1998, and the effect of “multiple roles”) A survey from the 1960s showed that a wish for more social contact was the main reason why housewives sought employment (Hoëm et al., 1975: p. 477). Women wanted to come out of their relatively isolated lives as housewives. This is in accordance with the results from paper I: non-employed women are lonelier

than the employed. On the other hand: the integration of women into the workforce has contributed to the disintegration of the patriarchal family institution (Castells, 1997). The legitimacy of the male breadwinner model has been challenged by the massive incorporation of women into the workforce.

There are also technological and cultural changes associated with economic growth that have contributed to the greater instability of partnerships and the lowering of marriage rates. The birth control pill introduced in the 1960s greatly increased women's power over their own lives, and changed the timing of marriage and births. Sex outside of marriage became safer, and reduced the cost of waiting to marry (Stevenson and Wolfers, 2007). Culturally, the population has increasingly supported emancipatory values and the equal rights of men and women. Women with more traditional value orientations are less likely to divorce than women with egalitarian values (Kiernan and Mueller, 1998; Kalmijn et al., 2004). The effect of labour force participation is dependent on values; a destabilising effect on marriages is found only among women holding traditional values (Kalmijn et al., 2004: p. 86).

Emancipatory norms do not develop in a vacuum, their cultural strength is influenced by the growth of social and economic resources. When the socioeconomic development, through economic growth and other mechanisms, increases individual resources, the scope for human choice is widened. And when there is more room for choice, value orientations change towards more emphasis on emancipation and self-expression. Aspirations are adjusted to fit with social conditions. While the growth of social and economic resources gives people the means to choose, the concomitant emancipative values provide the motivation to choose more freely (Welzel et al., 2003).

While the greater freedom of choice is a sign of societal progress and in numerous ways promotes human welfare, there is a flipside to the coin. Freedom to leave a marriage represents freedom for those who leave, but can be quite the opposite for those who are left behind, in some cases leading to humiliation, shame and depression. For those who choose to leave, the decision can have unforeseen negative consequences. The values of self-expression and independence are potentially liberating, but also imply the risk of false hopes and unrealistic expectations, resulting in a state of anomie. The increasing freedom to choose does not ensure that the choices are good. The importance of alcohol abuse is repeatedly pointed to in the research literature on antecedents of suicidal behaviour (see paper II). All else equal, a higher GNP per capita means increased opportunities for consumption, including consumption of alcohol. Alcohol consumption is largely pleasurable and perhaps even socially integrative for the majority of the population, but for a considerable minority alcohol dependence and acute intoxication become a grave problem.

A high educational level is both a consequence of, and a condition for, national wealth. Increasing educational demands create a prolonged youth period, where family and employment integration is postponed. As shown in paper II, there is a link between fewer marriages and a higher risk of suicide among young males. A weakening of family integration can make young people more vulnerable when they are exposed to the inevitable misfortunes of life. Marriage and family life provide the individual with a strong meaning and feeling of purpose. As Durkheim suggested, when the individual has no purpose outside his/her own existence, life difficulties may be intensified because of excessive self-concern (Durkheim, [1897] 2000; Berk, 2006). In addition, marriage implies regulation and social control, which may be particularly important in a society characterised by potentially anomic influences and the multiple opportunities for "bad choices" (exemplified by increasing opportunities for consumption of alcohol).

Why more suicides if depression rates have been stable?

It might seem as a paradox that suicide rates have increased although depression rates have been stable. First, there may have been an increase in depression among young men, where the suicide rates have increased the most, according to recent Norwegian studies (Hegna, 2005; Sandanger et al., 2007). Second, suicidal behaviour is influenced by factors other than depression and different forms of mental health problems. Suicidal behaviour is also a question of having *access to means* of ending

one's life, and the *opportunity* for using those means. In paper II, I cite the American case-control study of Kung et al. (2003), who show that persons who live alone, and have access to firearms, are particularly prone to commit suicide. Owning firearms implies having access to a suicidal mean and living alone implies stronger opportunity, since persons living alone are less closely monitored than persons sharing a household.

It is therefore likely that the increasing share of people living alone will be more closely related to the rates of suicide than to depression. Some years ago, Hughes and Gove (1981) found that unmarried persons who lived alone were on some indicators in better mental health than unmarried persons who lived with others. However, living alone was slightly related to maladaptive behaviours like drug and alcohol use. As they point out, the main benefit of sharing a household could be the higher likelihood of someone intervening before problems (depression, alcohol problems etc) reach a critical point (Hughes and Gove, 1981: p. 70). Persons living alone are at a higher risk of falling through the "safety net" (cf. Pescosolido and Rubin, 2000, discussed in chapter 3). On the other hand, persons living alone have the privilege of unlimited privacy and of not having to face the sometimes excessive demands made by other household members. Research also suggests that those who live alone to a considerable extent compensate for their lack of proximate social support by having more contact with friends (Alwin et al., 1985).

The causes of more people living alone are not entirely related to partnership dissolutions. The reasons are also demographic (greater longevity, lower birth rates), economic (more people have the economic ability), and cultural, related to living alone as a chosen life style in some groups (Hall et al., 1999: pp. 269-271).

There is reason to believe that the long-term process of secularisation has influenced the suicide rate (Cutright and Fernquist, 2000; Helliwell, 2004). The effect on suicides could quite well be stronger than the effect on depression, since secularisation presumably both affects the experience of meaning in life and the "culture of suicide", the view of suicidal behaviour as more or less "sinful". On the aggregate, national level, belief in God is negatively related to the suicide rate and to life satisfaction, but more strongly to suicides. However, variations in attitudes towards suicide do not in themselves explain national differences in suicide rates (Helliwell, 2004).

All in all, care should be taken in equating the increase of suicides in the population with a similar increase of loneliness and depression. A final point concerns children. Many years ago, Brown and Harris reported that many depressed mothers said the presence of their children was the only thing that prevented them from hurting themselves. They therefore concluded that: "...it will not do to assume that they [statistics concerning suicide] can be used to represent all miserable people in the community and to use them to draw conclusions about the distribution of misery in the population at large" (Brown and Harris, 1978: p. 282). The negative effect of birth rates on suicide risks was not confirmed by my aggregate analysis (paper III). However, studies using individual level data have found strong, negative correlations between suicidal behaviour and the number of children (Høyer and Lund, 1993), while the effect of having children on the risk of depression (Evenson and Simon, 2005) and loneliness (Stack, 1998; Van Tilburg et al., 1998) seems to be much weaker.

8.4 Final comments

Although I cannot, on the basis of the analysis in this dissertation, point out details of the mechanisms, my findings clearly paint a more positive picture of the state of social integration than implied by several social commentators and theorists of modern society (cf chapter 3). Why is this so? Why are there not more isolation, loneliness and depression as claimed by so many?

First, some of the presumed factors contributing to social disintegration lack empirical support. Perhaps most importantly, I have pointed out that there is mixed support for the claim that social relations in general have become increasingly temporal and contingent. A general problem with the sweeping theories of Beck, Giddens and others is that they are weakly grounded in empirical research. Fevre (2007: p. 531) suggests that an antidote to the mistakes made by these theorists "...could be found in the reinstatement of empirical research at the heart of the theoretical enterprise", and points to the work of Max Weber as the ideal to strive for.

Gross and Simmons (2002) suggest (finding no support for the anxiety-provoking side effects of "pure relationships") that Giddens have overestimated people's need for routine and predictability, or at least underestimated their ability to adjust. They also speculate that people today, as "connoisseurs of experiential variety" have come to appreciate, acquire a "taste" for, the contingent and ever changing nature of "the pure relationship".

Moreover, theorists and commentators alike seem to emphasise the increasing demands posed by late modern societies to a greater extent than the increasing resources that are also provided. As underlined by the stress adjustment perspective, a stress reaction will only occur if demands are stronger than the available coping resources, causing the individual to be overwhelmed by situational demands. A very important resource is knowledge and education, which has been linked to cognitive flexibility, better interaction skills and a heightened sense of control, a sense of having power over one's own life (Mirowsky and Ross, 2003). Then there is, at least for some groups, better physical health (especially in the form of improved functional ability among the elderly, see Barstad and Hellevik, 2004), also reducing the risk of social isolation, loneliness and depression. Better physical health is partly a result of advances in science and the improvement of medical services. Time (i.e. leisure time) is another resource provided in greater quantity by modern societies (although the extent of this of course varies between nations). The same goes for the availability of different things to do during leisure time, cf. the enormous growth in the supply of entertainment and sporting events, and (at least in Norway) a similar growth in the number of restaurants and cafés. Social relations are dependent on the investment of time for their maintenance, and there is reason to believe that the social bond is strengthened by the sharing of varied activities, of doing different things together (Hage and Powers, 1992: p. 163-166). Time constraints are also lessened by the welfare state (cf. the notion of "the temporal welfare state" discussed earlier) and of course by the telecommunications revolution.

All this does not mean that everything is just fine, and that we should follow the slogan "Don't worry, be happy". Although there does not seem to have been an increase in loneliness and depression, neither has there been a uniform decrease. About one in four of the adult population is to some extent troubled by feelings of loneliness at any time. For some groups (young men) there are even signs of higher depression rates. This is in itself remarkable, given the tremendous increase in economic growth and welfare state services. Suicide rates are still considerably higher than in the 1960s, especially for young men (cf. fig. 1, paper II); among young girls there was a significant increase in suicide attempts from 1992 to 2002 (Rossow, 2004).

As indicated by the results of this dissertation, the increasing rate of partnership dissolutions leads to human suffering in the form of anxiety, depression, loneliness and a heightened risk of suicide. These consequences are mainly in the short term, but this will not apply to all, and societal efforts to strengthen partnerships in terms of resources and easing of time restraints definitely seem to be well advised.

More and more people live alone. This is the clearest sign pointing towards disintegration and "non-community". It is also the paradigmatic example when social theorists empirically want to demonstrate the social correlates of individualisation (Galtung, 1995; Beck and Beck-Gernsheim, 1995). However, for most people living alone, there are few signs of widespread social isolation. Persons living alone compensate by having more extensive friendship contact than persons sharing a household with others, and seem in general to enjoy their freedom. However, the variations among

people living alone are immense, and for some the lack of regulation and “behaviour monitoring” contributes to substance abuse or other unhealthy behaviours. Living alone is a rather resource-demanding way of living; the person has to take the initiative to contact others and is more dependent than others on being mobile and healthy. The risk of falling through “the safety net” is increased. This is evidenced by the stories we can read in the newspapers from time to time about elderly people who have been found dead in their apartments without anyone noticing (Barstad, 2004). The risk of not being noticed is particularly high for persons living alone in neighbourhoods with little contact between neighbours.

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PAPER I

Paper I

Who is lonely and isolated?

Anders Barstad

The article discusses the importance of resources and arenas for a persons close relations. Inspired by Bourdieus theory on the relation between cultural, economic and social capital, it is shown that both access to cultural (educational level) and economic (income and material goods) capital is associated with a lower risk of experiencing isolation and loneliness. These associations vary, however, with gender and how the variables of social isolation and loneliness are operationalised. Indicators on isolation are influenced by an interaction between cultural and economic capital, as persons who lack both these forms of capital have the greatest risk. Being in good health, both mentally and physically, also reduces the risks, but mostly among women. Looking at the arenas, participating in voluntary organizations is linked to a lessened risk for social isolation, but not to the risk of being lonely. Unemployment is to some extent associated with isolation among men, and is strongly associated with the experience of loneliness among women.

Translated version of article published in *Tidsskrift for Velferdsforskning* 3(2) 2000:67-84.

Introduction

The perception of social participation and belonging as a fundamental human need stretches way back in time¹. On the basis of extensive research carried out in recent decades, we now have a much better foundation than previously for substantiating such perceptions. The research has linked a lack of stable and good inter-human relations to a range of unfortunate consequences with regard to welfare: strong negative feelings (e.g. depression, anxiety and grief), physical health problems and a number of “behavioural problems” ranging from traffic accidents to suicide and crime (see the comprehensive literature overview of Baumeister and Leary 1995). Opinions are often voiced in the societal debate that relate to social belonging having becoming a scarcer pleasure as a result of modern social development. Many are concerned about the signs of disintegrating social networks and increase in loneliness. Research has even claimed that loneliness is at the core of our current social problems (Singh 1991).

The aim of this article is to help create a better understanding of insufficient social integration as a phenomenon in Norwegian society. What is the relation between loneliness, isolation and other aspects of living conditions? Have these relations been stable over time? Are there signs that some aspects of living conditions have a greater bearing on social belonging than previously?

Integration and isolation, belonging and loneliness

What does being isolated and lonely entail? In order to understand these terms we need to consider their opposites: integration and belonging. The term “integration” originates from the Latin word *integer*, which among other things means “whole” or “undiminished” (Østerberg 1985: 23). Social integration entails an individual being part of a social whole. We regard the term here as an expression of an individual's *actual participation* in a social whole, as opposed to the subjective *perception* of belonging to, being a member of, such a whole. Two important questions that must then be answered are *what* are individuals isolated or integrated in relation to, and *how*. In this article we have chosen to concentrate on isolation in relation to primary relations. “Primary relations” is defined here as relations that are characterised by relative stability, affectivity, non-instrumentality and face-to-face contact (Höllinger and Haller 1990: 104, Cooley 1980 [1909]). In present-day society, it is primarily relationships with family and friends that have such a nature. The majority feel that it is family and friends they are closest to; neighbours and colleagues are specified much less often² (Wellman 1979). It is through close relations that we are loved and valued as whole persons. Social contact as such has limited significance for quality of life; it is the intimate and close ties that mean the most (see the references of Baumeister and Leary 1995: 506-507, 517). In a historical perspective, close personal relations (friendships and sexual intimacy) have become more important as a means of stabilising social ties, at the expense of the relationships linked to relatives and place of residence (Giddens 1994: 102-109).

Loneliness can be defined as the subjective, unwanted experience of being outside a social fellowship, as opposed to the experience of belonging to and being a member of such a fellowship. The unwanted detachment is accompanied by feelings of restlessness, depression, yearning and uncertainty (Tornstam 1988).

Resource and arena, relational work and capital

Close relations are formed and re-formed in a series of exchanges, through continuous interaction and communication processes. The formation and re-formation of close relations require, in a sense, work, and as with other work, *resources* or capital of different types are a necessity. Those who lack resources, whether it is in the form of time, money, knowledge, appearance, mental strength, “sociability” or some other form, are in greater danger of being socially isolated than others. Resources are required in order to gain access to *arenas* where people meet, to take the necessary initiative to make contact, and not least to maintain the relations established. Being together requires skills. The contact with other people is controlled by rules and expectations that should not be broken too often if the contact is to happen and be maintained. Social skills entail the ability to be open and show feelings, to be able to initiate a conversation, interpret others' verbal and non-verbal signals and

accept criticism (Fyrand 1994: 48). Lonely people appear to be less competent in these areas than other people (Spitzberg and Hurt 1989).

It is striking how several present day descriptions of close relations use the work metaphor, and highlight the significance of skills and resources in the relational work (Giddens 1994, Hage and Powers 1992). Pierre Bourdieu's understanding of the relation between different forms of capital is interesting in this connection (Bourdieu 1986). According to Bourdieu, capital is accumulated work that provides opportunities for acquiring other forms of work. The capital has three main forms: financial, cultural and social. He also uses the term "symbolic capital". Financial capital is money and property. Cultural capital is presented in three ways; as embodiment of certain skills and practices ("cultivation", *Bildung*), as cultural objects (including books and images) and as educational qualifications, the cultural capital's institutionalised form. Social capital is "connections"; the resources linked to the network of social relations. The magnitude of the social capital depends both on the size of this network and the size of the capital (financial, cultural or symbolic) that the person has at his disposal through those he is linked to (Bourdieu 1986: 249). Symbolic capital is defined as resources in the form of prestige and standing.

Bourdieu emphasises, in line with previously mentioned points of view, that the reproduction of social capital is a form of work that requires resources and specific forms of skills. The reproduction of social capital requires a continuous series of exchanges that confirm the mutual acknowledgement and membership in the group.

Bourdieu stresses that both cultural and social capital can be acquired via financial capital, but only through higher or lower transformation costs. Time is a basic dimension, since all relations require expending time. One of the most important benefits that financial capital gives is the increased volume of useful time. This provides the opportunity to buy or in some other way acquire services from others. Thus, leisure time can be spent more effectively. Poverty is time-consuming and energy intensive. Interviews with the long-term unemployed in Denmark imply that the shortage of money in itself sets limits on the "...social capabilities to cultivate and try new areas of activity and horizons" (Andersen and Larsen 1996: 65, translated from Danish). In addition, the access to some arenas where people meet costs money, such as restaurants and nightclubs, holidays and courses.

One of the ways the cultural capital affects the social relations is through the acquisition of the right manners and "nice" ways to talk. Both "cultivation" and education act as symbolic capital and form resources in the marriage market and other markets (Bourdieu 1986: 245). Another benefit that education brings, is the access to educational institutions as an arena where people meet and form close relations. Someone who has been through the entire education system from lower secondary school, through upper secondary school to university college and university, has been subject to at least 3-4 different sets of potential friends and acquaintances, compared with someone who has only been to lower secondary school (Fischer 1982: 92). Having access to arenas where people meet is of course of invaluable significance. Physical proximity and frequent interaction in them selves contribute to the formation of friendships (Homans 1966, Baumeister and Leary 1995: 501). We like those we are with. Physical proximity entails fewer barriers for contact and provides us with more information on others. Proximity through work, educational institutions, place of residence and voluntary organisations all form the foundation for developing close relations.

Based on these discussions, we can formulate the first hypothesis: the risk of social isolation and loneliness is greater, the fewer resources a person has (including education, income and health), and the fewer arenas for meeting with others the person has access to (work, educational institutions and voluntary organisations).

Are there theoretical arguments that can form the basis of hypotheses on an increasing or decreasing significance of specific resources over time? As already discussed, many place a great deal of emphasis on our close relations requiring "relational work". According to Hage and Powers (1992),

the post-industrial society requires constant negotiations and renegotiations of the work and family roles. Thus, they claim, the significance of interaction skills increases. The problem is how the skills can be measured. A number of writers have implied a correlation with education: higher education promotes "...skills useful for both initiating and maintaining network relations", a more open attitude towards possible actions and thereby perhaps greater flexibility when faced with relational problems (Cochran 1990a: 303-304). It is documented that higher education is connected with higher levels of self confidence and a stronger feeling of being able to influence and shape a person's own destiny. This contributes to an active command of problems, as opposed to feelings of powerlessness, which generally contribute to preventing such a command (Ross and Wu 1995, Ross and van Willigen 1997). To the degree there is a correlation between social skills and education, we will therefore, using the theory of Hage and Powers as a basis, expect that higher education has an increasing significance for social belonging and integration. This is rather speculative, but there are other aspects that support the hypothesis. Higher education has become an increasingly important resource in the labour market, and thus for the access to the workplace's social network (Bø and Lyngstad 1998: 86). There is reason to assume that these conditions will apply mostly to men, since work appears to mean more for men's close relations than it does for women (see below). In addition, the level of education among women has risen considerably more than among men. To the degree women expect the men they enter into relationships with to have a higher education than themselves, this will also contribute to the education level among men becoming more important. Our other hypothesis will thus be that, over time, there will be a tendency for education to have greater significance for social isolation, especially among men.

How can the experience of loneliness be understood in the resource and arena perspective? In part, a lack of access to resources can affect the experience of loneliness indirectly, through increasing the risk of social isolation or of relations riddled with conflict. Resources can also affect the experience of loneliness in a more direct way. It is conceivable that a lack of certain resources, such as health and income, increase the need for social fellowship, for closeness and human contact. Robert Weiss, who is behind the most quoted and influential theory in modern research on loneliness, goes even further in his understanding of "the loneliness of emotional isolation": "It is only when feeling under threat - vulnerable, insecure, anxious- (...) that the individual without an attachment figure will feel lonely" (Weiss 1989: 10). Our third hypothesis is therefore that few resources of a financial, health-related or other nature increase the risk of loneliness, even when account is taken of social isolation and what close relations a person constitutes part of.

Previous empirical research ³

What is the relation between social isolation and financial-material resources? Research in Scandinavia has been contradictory. According to Ringen (1976), social integration (his term is "sosial forankring", "social anchoring") is a welfare dimension that is characterised by not coinciding with welfare in a financial sense. Around the same time, a similar point was asserted by Erik Allardt (Allardt 1975). Some Norwegian and Nordic surveys have found moderate correlations between income level and different aspects of social contacts (including Christie 1976), as well as between social contacts and self-reported financial problems (Johannesen 1997, Vogel 1997). Surveys outside the Nordic countries confirm that low income entails a greater risk of social isolation (see for example Fischer 1982: 55, 252-53), but there appears to be major variations from country to country (Paugam 1996). One side of the social relations that is rather clearly linked to finances, is the status of single. Single people have, on average, considerably lower material standards and more financial problems than married couples and cohabitants (Vogel 1997). Among men, low income is connected with a greater risk of relationship break-ups (SCB 1995). Research into loneliness, both in Scandinavia and otherwise, has not delved very deeply into financial-material conditions. A handful of surveys have, however, found a correlation between loneliness and income/financial problems (including Wenger et al. 1996).

A number of surveys indicate that education has a stronger effect on social relations than financial conditions (Fischer 1982, Cochran 1990b). Both Fischer and Cochran conclude that education is the

single best indicator of the social network's scope and quality. "In general, education by itself meant broader, deeper and richer networks" (Fischer 1982: 251). In a Norwegian context, Willy Martinussen has shown that higher education and occupational position are connected with a stronger degree of integration and involvement in social networks (Martinussen 1993: 76-79). The most thorough study of loneliness in Norway, on the other hand, finds no correlation between level of education and experience of loneliness, and concludes: "Loneliness appears to affect different social layers to an equal degree" (Thorsen 1990: 120, the sample was limited to persons residing in Oslo). An equivalent survey in Sweden found that education and occupation have a significant, but weak correlation with "the intensity/quantity of loneliness" (Tornstam 1988). With regard to other resources, various surveys have rather clearly shown a correlation between health problems and social isolation (including Ringen 1976), and between health problems and loneliness (Tornstam 1988, Thorsen 1990).

The length of time a person has spent in a place can also be a resource in the efforts to establish close relations. Geographic mobility both at a local community level and at an individual level affects the social participation and forming of friendships in the local community (Sampson 1988).

Work appears to have a special significance for men's marital status. Employed men have a greater chance of getting married/becoming a cohabitant (Blom 1994), while unemployment or an unstable connection to the labour market increases the risk of relationship breakdowns (Paugam 1996). Norwegian surveys indicate that those outside, or with a marginal connection to, working life are lonelier than others (Thorsen 1990, Næss and Bergwitz 1991). As discussed already, educational institutions and voluntary organisations are arenas with opportunities for forming relationships, friendships and "connections". It is difficult to establish with certainty the cause and effect, but Ringen (amongst others) in his analysis of the Norwegian survey on living conditions for 1973, found a clear correlation between organisation participation and friendship at place of residence (Ringen 1976).

Method⁴

The data basis for the empirical analyses is the Norwegian Surveys of Level of Living conducted in 1980 and 1995. These surveys are based on face-to-face interviews with a random sample of the population, with the exception of persons who permanently reside in institutions (such as nursing homes and homes for the elderly). The net samples in 1980 totalled nearly 3,900 persons aged 16-79 years, and nearly 3,600 persons in 1995. In both years, the non-response rate constituted almost a quarter of the gross sample (24.6 per cent in 1995).

Social isolation is measured in two different ways. 1. Living alone and meeting neither close family or good friends outside the family as often as weekly (isolated1). Close family is made up of parents, siblings and own children aged 16 or older who have moved away from home. 2. Are neither married, cohabiting or have an intimate friend outside their own family (isolated2). In the first measure, the definition of social isolation is based on *frequency of interaction*, in relation to a person's own household, friends and close relatives. In the second measure, social isolation is defined more on the basis of assumptions on *intimacy and closeness* in the relations. Loneliness is measured by means of the following question in the Survey of Level of Living 1995 (a similar question have not been asked in previous living conditions surveys). "Do you feel lonely often, sometimes, rarely or never?" Respondents that replied "often" are defined as lonely⁵. The dependent variables are moderately correlated (see table 1. Table 2 shows the proportion isolated and lonely among men and women in the two surveys).

Table 1. Descriptive statistics for the variables in the analysis. Pearson's r^1 ($p < .05$).

	Isolated1	Isolated2	(N)	Lone-ly	(N)
Dependent variables					
Isolated1 (1=isolated, 0=not isolated)	-	0.20	6825	0.13	3321
Isolated2 (1=isolated, 0=not isolated)	0.20	-	6825	0.19	3318
Lonely (1=often lonely, 0=other)	0.13	0.19	3318	-	3333
Resources					
<i>Education</i> (1=Lower secondary school, 2=Upper secondary school, 3=1-4 years university college/university, 4=5 years + university college/university)	i.s.	-0.13	6823	-0.11	3319
<i>Household income after tax per consumer unit</i>					
Income1 (1=lowest decile, 0=other)	0.07	0.15	6834	0.13	3330
Income2 (1=lowest quartile, except lowest decile, 0=other)	0.04	0.08	6834	0.06	3330
<i>Material goods</i> (no. of material goods, 0-4)	-0.11	-0.17	6602	-0.14	3331
<i>Disabilities</i> (no. of disability problems, 0-5)	0.12	0.13	6810	0.09	3323
<i>Mental health</i> (index, 1=poor, 2=average, 3=good)	-0.07	-0.09	6791	-0.29	3301
<i>Period of residence</i> (1=0-4 years, 2=5-9 years, 3=10-19 years, 4=20 years+)	i.s.	0.06	6802	i.s.	3309
Arenas					
<i>Connection with working life</i>					
Work1 (1=registered unemployed, 0=other)	i.s.	i.s.	6664	0.11	3260
Work2 (1=not employed except reg. unemployed, 0=other)	0.07	0.14	6664	0.09	3260
Work3 (1=part-time employee, 0=other)	-0.03	-0.05	6837	i.s.	3333
<i>In education</i> (1=in education, 0=not in education)	i.s.	-0.02	6789	i.s.	3286
<i>Organisation activity</i> (no. of organisation types, 0-7)	-0.06	-0.09	6827	-0.05	3323
Control variables					
<i>Sex</i> (1=men, 2=women)	i.s.	i.s.	6837	0.04	3333
<i>Age</i>					
Age1 (1=20-29 years, 0=other)	-0.04	-0.03	6837	i.s.	3333
Age2 (1=50-69 years, 0=other)	i.s.	0.02	6837	i.s.	3333
Age3 (1=70-79 years, 0=other)	0.11	0.20	6837	0.09	3333
<i>Residence</i> (1=sparsely populated area outside cities, 2=densely populated area outside cities, 3=cities except Oslo, 4=Oslo)	0.05	i.s.	6756	i.s.	3256
<i>Year</i> (1=1995, 0=1980)	i.s.	-0.05	6837	-	-

¹ In some cases, Pearson's r is not the best correlation measure, since some of the variables have an ordinal measurement level. Using correlation measures for variables at ordinal level (Kendall's tau b), however, gives almost identical results.

The resource variables comprise education, household income, material goods, physical functionality, mental health and period of residence (see the overview in table 1). The material goods consist of cars, ownership of own home, holiday cottage/second home and telephone. Special emphasis is placed on goods that can have a bearing on mobility and contact with other people. The index for functionality is based on five questions on disabilities, and counts the number of such problems. The index for mental

health comprises two questions: one that asks whether the person has suffered nervousness, anxiety or restlessness, and one if they have felt depressed and down. The maximum number of points (3) will be for those who have never been subjected to any of these ailments during the course of the last 6 months, and the lowest number of points (1) will be for those who have often suffered from at least one of these complaints.

The arena measurements comprise the attachments to work, educational institutions and various organisations (voluntary associations and trade unions/professional bodies). The attachment to working life is represented with 3 dummy variables. Persons who normally work 35 hours or more each week are the reference category. The index for organisation activity is a continuous variable that counts the number of organisation types that a person is a “somewhat active” or “very active” member of.

Age, place of residence and year of survey have been included as control variables. Age is represented by 3 dummies, with the age group 30-49 as a reference category. Age could be used as a continuous variable, but the preliminary analyses showed that the correlations with age were not linear. Previous research has indicated that both young people setting up home and the elderly can be particularly vulnerable groups (e.g. Turner and Marino 1994, Johannesen 1997). We have chosen to exclude the teenagers (16-19 year-olds) for various reasons, including the fact that most persons in this group are in education and live at home. The question of whether a person is married or cohabiting is also less relevant for this group.

The preliminary analyses showed signs of strong interaction effects by gender. This is in line with previous research (Bø 1993: 122-23, Andersen and Larsen 1996). The analysis is therefore carried out for men and women separately. All of the variables are tested for any interaction with the survey year; the statistically significant interactions are retained in the model. In some cases, non-significant interactions are also retained, in cases where they were shown to have a considerable influence on other correlations. These interaction effects are generally on the border of being statistically significant (5 per cent level). In addition, the variables are tested for any interaction between cultural and financial capital (level of education and income). Logistic regression is applied as a method of analysis. Logistic regression is a suitable method where the dependent variables are dichotomous, as in this case. The method is used to analyse what factors affect the probability of being socially isolated or lonely. Indeed, in the analysis, it is not the probability as such that must be calculated, but the natural logarithm of the odds ratio; in this case the ratio between the probability of a person being and not being socially isolated/lonely⁶.

When interpreting the results, it is important to be aware of two limitations: one is that in cross-section surveys it is often difficult to assess the causal direction between the variables. The theoretical assumptions explained previously indicate complicated social processes; processes that the data basis to a limited extent is suitable for uncovering. In many cases, we must confine ourselves to pointing out statistical correlations that confirm or contradict the hypotheses, without being able to comment with any certainty on cause and effect.

The other limitation is that the results show the independent variables' *direct* effect on the risk of isolation and loneliness, i.e. the effect “all things being equal”, when the values of other variables are taken into account. The method entails no account being taken of indirect effects, in other words, the causal impact a variable can have by influencing other independent variables. As we will come back to later, it is important in some cases to be aware of such indirect effects.

Table 2. Distribution of the dependent variables

	1980		1995	
	Per cent	(N)	Per cent	(N)
Men				
Isolated1	1.3	(1722)	1.0	(1645)
Isolated2	6.4	(1689)	4.9	(1640)
Lonely	-	-	3.1	(1651)
Women				
Isolated1	1.8	(1860)	1.7	(1682)
Isolated2	7.7	(1827)	4.7	(1681)
Lonely	-	-	4.8	(1682)

Results

Social isolation

Table 3 shows the statistical results concerning the relations between social isolation and the access to resources and arenas. For variables at an ordinal level and higher, the coefficients represent the size of the change in the log odds by a unit's change of the independent variable. A plus sign means that the odds are greater, i.e. that the risk of social isolation increases with rising values of the variable, and correspondingly, a minus sign means that the risk is reduced. For example, the table shows that the more disabilities women have, the greater the risk of them living alone and having little contact with family and friends, "all things being equal" ($\text{logit}(y)=0.46$, odds 1.58). The standard error shows the proliferation around the estimate. For categorical variables, the coefficients represent the deviation in the log odds via a set value for the independent variable relative to the reference category (Menard 1995).

Many of the results concur with the first hypothesis. Of the resources, it is material goods and income that have the strongest effect. Low income and few material goods are associated with a greater risk of social isolation (the effect of low income is not significant in all cases). On the other hand, higher education does not reduce the risk of isolation, apart from in combination with low income. For those in the lowest income quartile, higher education reduces the risk of lacking close relations (isolated2), but not for those who earn more than this.

In order to be able to give a true assessment of the significance of education, it is important to take account of indirect effects. Other research has shown how higher education reduces the chances of unemployment, poor working conditions and low income, and through this has a protective effect on mental and physical health (Ross and Wu 1995, Ross and van Willigen 1997). As table 1 shows, there is a bivariate correlation between education and one of the indicators of social isolation (isolated2). In a model that only controls for age, gender and place of residence, higher education reduces the risk of neither living as a couple nor having an intimate friend, but not the risk of living alone and having limited contact with family and friends (figures not shown). There is a tendency for the correlation between isolation and education to be stronger in 1995 than in 1980, but the interaction between survey year and education is not statistically significant at the 5 per cent level, either for men or women. Thus, hypothesis two is not confirmed.

How important the various resources are, varies between men and women. State of health appears to have some significance for women, but not for men. Women who suffer from mental health problems are, on average, somewhat more isolated than those who do not have such problems. How long a person has lived at their place of residence does not have the expected effect; among men it is rather

the case that the share lacking close and intimate relations is higher among those who have lived at their place of residence for a longer period of time.

Table 3. Logistic regression analysis of two measures of social isolation, in relation to access to resources, participation in different arenas and control variables.

	Isolated1				Isolated2			
	Men		Women		Men		Women	
	b	Sb	b	Sb	b	Sb	b	Sb
Constant	-4.51**	1.29	-5.91**	1.64	-2.14**	0.71	-1.85**	0.83
Resources								
Education	0.35	0.22	1.19**	0.29	-0.12	0.14	-0.34	0.19
Income1	0.85	0.55	1.91*	0.97	1.86**	0.68	1.07	0.56
Income2	-0.11	0.57	2.53**	0.98	-0.23	0.70	1.64**	0.58
Material goods	-0.95**	0.19	-0.67**	0.16	-0.52**	0.09	-0.52**	0.09
Disabilities	0.13	0.17	0.46**	0.11	0.16	0.09	0.14	0.08
Mental health	-0.15	0.29	-0.61**	0.21	-0.06	0.15	-0.26*	0.13
Period of residence	-0.04	0.17	-0.08	0.14	0.31**	0.08	0.07	0.09
Arenas								
Work1 (reg. unemployed)	-0.34	0.90	0.02	0.90	1.85**	0.68	-0.36	0.66
Work2 (other not employed)	-0.82	0.60	-0.55	0.53	0.25	0.31	-0.18	0.28
Work3 (part-time work)	-1.51	1.10	-0.45	0.55	0.43	0.49	-0.09	0.29
Organisation act. In education	-0.56*	0.25	-0.40*	0.20	-0.28**	0.10	-0.20	0.11
	1.33	0.68	-0.05	0.86	-0.10	0.39	-0.20	0.52
Control variables								
Age1 (20-29 years)	-1.75**	0.67	-0.51	1.44	0.76**	0.23	0.06	0.46
Age2 (50-69 years)	0.63	0.49	2.74**	1.06	0.24	0.25	1.35**	0.37
Age3 (70-79 years)	1.60*	0.73	3.45**	1.11	0.43	0.36	2.28**	0.42
Residence	0.36*	0.18	0.30*	0.15	-0.09	0.10	0.18*	0.09
Year	0.38	0.39	1.81	1.11	0.16	0.23	0.57	0.44
Interaction								
Age1*years	-	-	-1.63	1.80	-	-	-1.56*	0.79
Age2*years	-	-	-2.31	1.22	-	-	-1.39*	0.55
Age3*years	-	-	-1.82	1.18	-	-	-0.70	0.51
Work1*years	-	-	-	-	-1.32	0.83	-	-
Work2*years	-	-	-	-	-0.08	0.37	-	-
Work3*years	-	-	-	-	-1.56	0.88	-	-
Education*income1	-	-	-0.53	0.57	-0.84*	0.40	-0.04	0.36
Education*income2	-	-	-1.28*	0.60	-0.05	0.43	-0.83*	0.42
- 2 log likelihood	328.09		409.72		1171.23		1081.83	
N	3044		3189		3013		3164	

b=parameter estimate

Sb=standard error of parameter estimate

*significant at 5 per cent level

**significant at 1 per cent level

With regard to the significance of different arenas, the results are more mixed. The first hypothesis is confirmed in some cases: organisation activity is generally associated with a lower risk of social isolation, and unemployed men lack, to a greater degree, close relations in the form of a partner or intimate friend, compared with the reference group of full-time employees. Participation in the educational institutions has on the other hand no independent significance, and attachment to working life has little bearing on social isolation among women.

The most striking result from table 3 is the strong correlation between isolation and age among women. Even with a control for access to resources and arenas, social isolation is considerably more widespread among women over 50 than among younger women. The correlation between isolation and age has, however, changed somewhat from 1980 to 1995, which can be seen by the interaction effects between age and survey year. The development has been more positive for the youngest age group and the age groups over 50 than for the middle aged. Among men, there is interaction between survey year and participation in working life. The interaction is marginally non-significant at the 5 per cent level, but is nevertheless included because the correlations with other variables are significantly affected by these interactions⁷. Men with little connection to working life were less isolated in 1995 than corresponding groups in 1980.

The analyses also show that income and material goods have a stronger bearing on the risk of living alone and living as a single person than on the risk of lacking friendships and family relations (figures not shown). There are no significant correlations between income, material goods and contact with friends. On the other hand, higher education entails a greater probability of a person having intimate friends, and reduces the risk of little contact with friends among women.

Loneliness

In table 4, the same model is used as in table 3, but now it relates to the question of loneliness, which was asked in the 1995 survey. The only difference is that the survey year and mental health problems have been removed from the model. Doubt can be raised with regard to what degree loneliness and mental health problems are independent dimensions. In one of the most acknowledged and used instruments for measuring mental health in surveys, the so named Hopkins Symptom Checklist (HSCL), loneliness is included as one of many signs of poor mental health (Derogatis et al. 1974). The results from the Survey of Level of Living 1995 also show that the simple measure of mental health problems and the experience of loneliness clearly are correlated (cf. table 1).

The results in table 4 support the first hypothesis to a certain extent, but in this case, the gender differences are far more striking than in the previous section. Compared with men, women's experience of loneliness appears to be more sensitive to various social influences. It is only the material goods that have a significant bearing on men's experience of loneliness. Among women, low education, low income and poor health all increase the risk of "often" feeling lonely. Compared with the results in table 3, there is a surprisingly clear correlation between women's connection to working life and the experience of loneliness. Unemployed women run a considerably greater risk of loneliness than other women. There is also reason to note that while we previously found a strong correlation between isolation and age among women, the correlation between loneliness and age is a great deal weaker⁸. In the same way as for isolation, models that only control for sex, age and place of residence show that higher education reduces the risk of loneliness both for men and women.

Table 4. Logistic regression analysis of the risk of often feeling lonely, in relation to access to resources, participation in different arenas and control variables.

	Men		Women	
	b	Sb	b	Sb
Constant	-1.00	1.19	-2.00*	1.01
Resources				
Education	-0.29	0.23	-0.52*	0.23
Income1	0.91	0.57	0.97*	0.41
Income2	-0.18	0.50	0.09	0.37
Material goods	-0.53**	0.19	-0.23	0.16
Disabilities	-0.01	0.17	0.29**	0.10
Period of residence	-0.09	0.15	-0.11	0.14
Arenas				
Work1 (reg. unemp.)	0.69	0.62	2.13**	0.50
Work2 (other not employed)	0.45	0.52	0.84	0.49
Work3 (part-time work)	-0.28	0.77	0.44	0.49
In education	-0.73	0.80	-0.24	0.58
Organisation act.	-0.06	0.17	-0.14	0.16
Control variables				
Age1 (20-29 years)	-0.53	0.49	-1.02*	0.47
Age2 (50-69 years)	0.11	0.46	-0.37	0.39
Age3 (70-79 years)	0.43	0.65	0.23	0.45
Residence	0.19	0.18	0.17	0.16
- 2 log likelihood	359.62		476.80	
N	1537		1543	

b=parameter estimate

Sb=standard error of parameter estimate

*significant at 5 per cent level

**significant at 1 per cent level

It can also be noted that the same results can by and large be seen for men as for women, but to a lesser extent, such that the correlations do not reach the border of statistical significance.

And so to the third and final hypothesis: Does a lack of access to various resources mean greater loneliness, even when account is taken of the close relations a person has? In order to test this we have supplemented the model in table 4 with the two measures of social isolation, as well as other measures of close relations. The first is partner relationships (whether a person is single or not), the second is whether a person lacks an intimate friend, the third is whether a person has little contact with friends (meets good friends less than once a month) and the fourth is whether a person has little contact with family (has no close relatives or meets close relatives less than once a week). When these primary relations are taken into account, income and material goods no longer have any significant effect on the risk of loneliness (figures not shown⁹). Among women, however, the correlation between education level and loneliness remains, and the state of health impact is the same. The attachment to working life is shown to be even more important for women's experience of loneliness. Both unemployed and other non-employed women are significantly more lonely than those who work full time. Overall, it therefore appears that the third hypothesis is confirmed to some degree when we only consider the women, while we find no support for the hypothesis among men¹⁰.

As expected, the partner relationship is the most important close relationship. Single people have a far greater risk of experiencing loneliness than married couples or cohabitants. It is, nevertheless, striking how much more important the partnership relationship is for men than for women. All things being equal, single men have almost 10 times higher odds of often feeling lonely as married and cohabiting men ($\exp [2.25]=9.48$). Among women, the corresponding odds are 3.3.

Discussion

We expected the risk of social isolation and loneliness to be less, the more resources a person had access to. These expectations have partly been confirmed, depending on gender and what measures of isolation and loneliness are used. The isolated and lonely generally have lower education levels and incomes, fewer material goods and more physical and mental health problems than others. The significance of education is, however, primarily indirect. When account is taken of the indirect connections, there does not seem to be any credence to what has previously been claimed in research into loneliness in Norway, that loneliness affects different social layers equally (Thorsen 1990). Additionally, the relation between income conditions and loneliness underlines this point. The risk of lacking close relations is particularly high if a person lacks both cultural and financial capital. The hypothesis that a short period of residence increases the risk of social isolation is, however, not supported to any degree. It is possible that any negative effect of moving house is only present to start with, but quickly diminishes. Moreover, it is likely that the effect of a short period of residence will be greatest in relation to the *local* contact with friends and with neighbours¹¹.

The significance of arenas for social isolation and loneliness is confirmed in some cases. Unemployment among men is associated with a greater risk of lacking close relations, and among women there is a clear correlation between participation in working life and experiencing loneliness. Social isolation also diminishes as organisation participation increases. Being in education on the other hand has little significance on its own.

The hypothesis of an increasing significance of the education level for social isolation is not borne out, even although there are trends that point towards this direction. It may be the case that 15 years is not long enough to demonstrate significant differences. There is a tendency among men for employment to have less significance than previously. This can be due to the different labour markets at the two periods in time. Among men, it was more common to be employed full time, and far fewer were unemployed in 1980 than in 1995. It was probably, therefore, a more select sample of men who were unemployed in 1980 compared to 1995, when unemployment was something that to a greater extent could affect "everyone".

The hypothesis of a statistical correlation between resources and loneliness, regardless of close relations, is partly confirmed among women, but not among men. For men, it is only close social relations that have a direct effect on the risk of "often" feeling lonely. For women it is different; both higher education and good health reduce this risk independent of other variables.

As already discussed, it is difficult to draw conclusions on causal relations in a cross-sectional survey. This also makes it difficult to assess the validity of some of the theoretical underpinnings for this article. The assertion is made here that close relations require input of time and other resources, and that this constitutes a major part of the explanation of the connection between, for example, financial and social capital. One condition for these assumptions is that the causal direction goes from resources to relation, from cultural and financial capital to social capital. However, the causal direction can obviously also go in the opposite direction. The fact that financial-material conditions have a greater bearing on the risk of living alone and living as a single person than for lacking friendships and family relationships points in such a direction. This implies that the scale advantages of sharing a household with others is a crucial part of the explanation of the correlation between financial and social capital. On the other hand, it is also conceivable that the lack of resources and skills has a particularly large bearing in a couple relationship and when sharing a household with others. A couple relationship

requires a greater investment of resources in the form of time and attention, and the expectations of closeness, care and intimacy are generally strong. In relation to cultural capital, it is more reasonable to assume that the causal direction is one-way. Cultural capital in the form of educational qualifications is a resource that is acquired relatively early in the life cycle. In contrast to income and material goods, it appears that higher education promotes the formation/re-formation of friendships. The reasons for the effect of education can, as previously discussed, be that education gives prestige and promotes social skills, amongst other things. Another possibility is that higher education gives access to workplaces that lay a better foundation for social contact and stimulate social participation in leisure time to a greater degree (Wilson and Musick 1997). The education and income differences can, however, also be due to a third variable that we have not controlled for, most probably a form of personality or childhood variable, which affects how well a person does at school and work, as well as the ability to form and re-form close relations. To what extent this is the case is difficult to assess. Studies of loneliness have shown that social conditions in general have a bearing on the experience of loneliness regardless of personality traits and childhood environment (Tornstam 1988). A similar formulation of such a "third variable" explanation can be made taking Bourdieu as a starting point. The greatest determinant in relation to social relations is not necessarily the educational qualifications as such, but the embodied cultural capital ("cultivation") that is acquired in the childhood home, which impacts both the educational qualifications attained and the social skills. However, the cultural capital that is acquired in the childhood home is in turn affected by the family's financial and social capital (how much time and attention that is dedicated to the child's cognitive development can, for example, be affected by financial conditions and whether the child lives together with both parents, cf. Coleman 1988).

In some cases, the results indicate considerable differences between the social worlds of men and women. Above all, this applies to loneliness. The results seem to be in line with traditional gender role patterns and assumptions that women are socialised into a more "relations-oriented" mindset than men. It is only among women that the lack of connection to a working fellowship has an impact on the experience of loneliness, and it is only among women that we find a correlation between resources and the experience of loneliness regardless of close relations. The reason for the latter may be that the lack of certain resources, such as good health, both increases the need for contact and the potential for conflicts in close relations. Perhaps an effect of women's "relations-oriented" mindset is seen here, which helps to make women more aware of, and sensitive to, such conflicts. Men seem more unilaterally dependent on entering into a couple relationship.

A weak connection to working life, with a partial exception for unemployed men, had little to do with social isolation. This can be interpreted as follows: those who are unemployed have one advantage over the employed: they have a great deal of time. One of the benefits that the long-term unemployed specify when they are asked to give possible benefits of being unemployed, is more time for family and friends. At the same time, around 4 out of 10 say that the loss of contact with colleagues is a major disadvantage of being unemployed (Kitterød 1995: 61).

The available analysis suffers under a number of limitations. We have mentioned the problems of drawing conclusions on causal relations in cross-sectional surveys. The indicators of social isolation are not ideal since the Surveys of Level of Living do not cover all forms of social contact (e.g. the contact with relatives other than the close ones). Furthermore, we have concentrated on isolation in relation to primary relations. An approach that focuses on the number of friends or on the size of the social network could have produced different results. Unfortunately, there are certain shortcomings in the Surveys of Level of Living that make it impossible to answer many questions in relation to social integration. Apart from such conditions as the number of friends and acquaintances, the qualitative content in the relations is also poorly covered. What appears to be equality in social contacts can conceal important qualitative differences. It is, for example, known that a considerable share of single people receiving social assistance, despite having almost as good contact with friends and family as other people, experience that they have relations with other people that prevent them from coping with, or getting out of, their difficult life circumstances (Bringsli and Myhre 1994). Research into

the relation between marital status and mental health also underlines the qualitative aspects, more precisely the balance between the conflict-riddled and supportive aspects of a couple relationship (Horwitz et al. 1997).

Can any political implications be ascertained from these results? Close relations belong to a person's private life and are generally perceived as a part of life that politics should not attempt to govern (Allardt 1975). Transversely, it could be objected that political decisions in many cases nevertheless seem to rule our social relations, mostly in the form of unforeseen side effects. A policy that reduces the access to resources and arenas will probably also contribute to increasing the risk of loneliness and isolation. Actions that lay the foundations for voluntary organisations can strengthen the opportunities for the formation of friendships, and a policy that reduces unemployment and increases employment will, in addition to other positive effects on welfare, probably also have a positive impact in relation to the sense of belonging. The significance of low income for social isolation and loneliness shows the potential significance of the income and social security policy. Divorces and loss of work are two of the most important causes of financial problems and for people visiting the social security offices in present day Norway. In both cases, it is not just the loss of money that is often the result, but also the loss of relations and loneliness. Financial problems can in such a situation be a considerable extra strain. In both cases, it can moreover be an important survival strategy to utilise "connections" and weak ties (Granovetter 1982); a strategy of this nature is made difficult by the lack of money. We previously referred to a Danish study of the long-term unemployed, which showed that the shortage of money can be energy-intensive and reduce social capacity (Andersen and Larsen 1996)¹². With regard to the great influence that close relations have on the quality of life, there is at least reason to be aware of the possible unintentional effects of different measures.

Acknowledgment: A special thank you is extended to Arne Mastekaasa for his comments on earlier versions of this article.

NOTES

¹ For example, we find it in Genesis 2.18 and Ecclesiastes 4.8-12. A relatively new example (from the 1950s) is Erich Fromm, in the well-known book "The Art of Loving": "This desire for interpersonal fusion is the most powerful striving in man" (Fromm [1957] 1995: 14).

² Cooley perceived neighbours to be a primary group, but in today's society, neighbour relations have scarcely the same meaning as in Cooley's day. This also applies to relations with relatives other than close relatives (Höllinger and Haller 1990: 104, Giddens 1994).

³ In order to save space, the references to earlier research are not fully complete. A complete reference list is available upon application to the author.

⁴ The definition of variables differs somewhat between the Surveys of Level of Living of 1980 and 1995. A note that gives a more detailed account of the comparison problems and other methodic considerations is available upon application to the author.

⁵ It seems reasonable to use the share that are "often" lonely as a dependent variable, since the experience of loneliness "sometimes" (or even less often) can hardly be described as a welfare problem. By including "sometimes" in the category, moreover, a large part of the population would be described as lonely (22 per cent). Alternatively, the question on loneliness could have been used as an ordinal variable, in an ordinal logistic regression. However, tests conducted using the procedure `proc logistic` in SAS, show that the variable is not suitable for use in such an analysis. Nevertheless, we have used another dichotomisation of the loneliness variable in some cases (lonely both "often" and "sometimes"), in order to see how different the results become.

⁶ $\ln(p/(1-p))$. This is known as the logit to y and is written $\text{logit}(y)$. It is possible to calculate back to the odds and the probability from $\text{logit}(y)$. Converting back to the odds is done by exponentiating the log odds: $\text{Odds}(Y=1) = e^{\text{logit}(y)}$.

⁷ This also applies to the interaction among women between age and survey year for the risk of living alone and having little contact with friends and family. The interaction between age (50-69 years, 70-79 years) and survey year are significant until financial-material and health-related resources are included in the model. A possible interpretation is that improvements in older women's health and finances have contributed to a better social network, and that when this is taken into account, the interaction effect is no longer significant.

⁸ Are the results sensitive to changes in how the dependent variable is dichotomised? An alternative dichotomisation of the loneliness variable is, as discussed, to include both the share that responded "often" and the share that answered "sometimes" to the question of whether they ever felt lonely. The main difference in relation to table 4 is that with a dichotomisation of this nature, there is an interaction between education and income that corresponds to that found in table 3, both for men and women. The effect of women's connection with working life is weaker, but still significant. In addition, a certain effect can be traced from organisation activity among men; the more organisation types a person is in, the less lonely they feel.

⁹ The table is available upon application to the author.

¹⁰ This conclusion is conditional on how we choose to dichotomise the loneliness variable. If we also include a weaker form of loneliness (lonely “sometimes”), the lack of resources gives a similar outcome among men and women. Having few material goods and the interaction between low education and income are both linked to a greater risk of loneliness among men, even when controls are made for close relations.

¹¹ We have tested this by using the question in the Surveys of Level of Living on how many neighbours a person has face-to-face contact with as a dependent variable. In an ordinal logistic regression model, it is shown that the period of residence in this case has an independent effect: the shorter the period of residence, the less contact with neighbours. A short period of residence also increases the risk of little contact with family.

¹² A relevant debate topic at the time of writing is the question on tax deductions for single people. It is possible that such a deduction would have reduced the statistical correlation between financial-material conditions and social isolation. As already discussed, it is the status as single and living alone that is most strongly associated with poor finances and few material goods. Above all, we find this correlation among those with a low education level. It appears that those with the lowest education have the greatest need for the resources that couple relationships and joint households give access to. This means that a tax deduction for single people can have favourable distribution effects. The tax deduction issue for single people also has other sides, which perhaps would pull the argument in another direction. However, the example illustrates a political decision with conceivable consequences for the relation between financial and social capital.

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PAPER II

Explaining changing suicide rates in Norway 1948–2004: The role of social integration

Soc Indic Res
DOI 10.1007/s11205-007-9155-x

Explaining Changing Suicide Rates in Norway 1948–2004: The Role of Social Integration

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Accepted: 4 June 2007
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Abstract Using Norway 1948–2004 as a case, I test whether changes in variables related to social integration can explain changes in suicide rates. The method is the Box-Jenkins approach to time-series analysis. Different aspects of family integration contribute significantly to the explanation of Norwegian suicide rates in this period. The estimated effect of separations is stronger than the effect of divorces, both for men and women, probably because separations are closer in time to the “real” marital breakup. This difference has not been demonstrated in earlier time-series research. Marriages decrease the suicide rates for males. The unemployment estimate for men has a negative sign, contributing to fewer suicides. Both increasing alcohol (beer) consumption and fewer marriages seem to be implicated in the soaring suicide rate for young men since 1970.

Keywords Suicide · Social integration · Norway · Time-series · Separations · Family integration

1 Introduction

Suicide rates are a commonly used social indicator. They have been interpreted as indicators of social disintegration, following the tradition of Emile Durkheim ([1897] 2000), distress and quality of life in general (Diener and Diener 1995). Paradoxically, increasing national wealth does not seem to reduce suicide rates. While most indicators on quality of life, including subjective wellbeing, indicate a better quality of life in wealthier nations, wealthy nations have higher suicide rates than poor nations (Diener and Diener 1995; Diener 1995).

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Norway is no exception in this respect. Norway has seen great improvements in its level of welfare, according to the UN Human Development Index (HDI, based on the key welfare dimensions of survival, knowledge and living standards). The HDI places Norway as the world's most developed country today (UNDP 2006). Gross national product (GNP) per capita (in fixed prices) more than trebled between 1960 and 2004. However, compared to 34 other nations, Norway had one of the strongest linear trends of increasing suicide rates in the period 1960–1990 (Lester and Yang 1998: 54–55). After 1988, there has been a substantial downward trend. Still, in 2004, the suicide rate was considerably higher than in any of the years before 1960, both for men and women.

Young men have been particularly affected by these developments. In the 1960s and early 1970s, the suicide rate of young men (age group 15–24) was still considerably lower than the rate for all men. During the last 10 years, the risk of suicide has been somewhat higher for young men than men in general. Deaths at this early age means that many years of life are (potentially) lost, and that parents have to face the excruciating pain of losing a child in suicide.

In this article, I attempt to make a contribution to the literature on explanations of the rising suicide rate in rich countries, using the Box-Jenkins approach to time-series analysis, and Norway as a case. Following the Durkheimian tradition, the main question is: Can changes in variables related to social integration explain the changes in the suicide rates mentioned above? I will look at the male and female suicide rate, in addition to the rate for young men (Fig. 1).

There are several problems in earlier research on the subject, both in the international and Norwegian context. First, one weakness concerns the choice of integration variables. In this article, I use a more comprehensive set of family integration variables than previous studies. Most importantly, separations are added as an indicator of family disintegration. I will show how the inclusion of this variable affects conclusions drawn, and that the failure to include separations can give distorted results, also regarding the effects of other variables. Second, earlier research has pointed to the importance of alcohol consumption, but has usually not considered beverage-specific effects. I will show how conclusions regarding the effect of alcohol are affected by choice of beverage. Third, I add variables

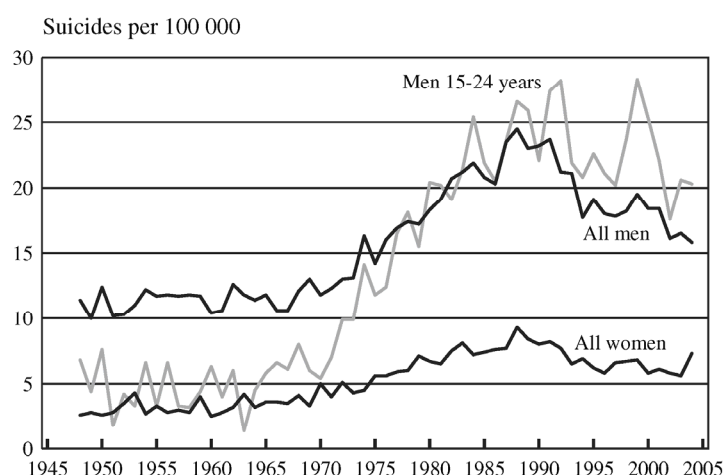


Fig. 1 Suicides in Norway for all men, all women and for men in age group 15–24, per 100,000 inhabitants. 1948–2004

measuring economic circumstances (GNP per capita, cases of social assistance), which have not been included in most time series studies of the Norwegian suicide rate.

2 Findings in Earlier Research

Only a handful of earlier studies have analyzed suicide rates in Norway, using time-series methodology, in relation to integration variables (Stack 1989; Rossow 1993; Lester and Yang 1998). All these studies point to the divorce rate as a factor behind increasing suicide rates. Several researchers have focused more exclusively on the potential impact of alcohol (Skog 1986; Norström and Rossow 1999; Ramstedt 2001), in general supporting the link between alcohol consumption and suicide rates (consistent with Rossow 1993). Internationally, a number of aggregate level studies have been done, using time-series methodology (reviewed in Stack 2000a, b; Gunnell et al. 2003). Many studies have confirmed that increasing alcohol consumption is positively associated with suicide rates (Wasserman 1989; Gruenewald et al. 1995; Norström 1995; Caces and Harford 1998; Ramstedt 2001, 2005). However, not all studies confirm this pattern (Gmel et al. 1998; Stack 2000a; Lucey et al. 2005). The role of alcohol consumption seems to be dependent on culture, being more closely related to suicidal behavior in “dry” than in “wet” drinking cultures (Ramstedt 2001, Norway is classified as belonging to the first category). The role of unemployment has been investigated extensively. The findings are heterogeneous, although a majority of studies have found that unemployment is positively associated with the male suicide rate (see the review by Platt and Hawton 2000; Norström 1995; Gruenewald et al. 1995; Caces and Harford 1998; Ramstedt 2005). Others have found that unemployment only increases the suicide risk for particular groups (Yang 1992: white males; Gunnell et al. 2003: the elderly 60+ and young women) or even has a negative impact (Gmel et al. 1998, significant only for women, also Neumayer 2004). The divorce rate is included in many, aggregate level, longitudinal studies. Results are ambiguous (reviewed by Stack 2000b). Some find no effect (Norström 1995; Caces and Harford 1998) while others find a positive association with suicides, at least for some groups (Yang 1992; Lester and Yang 1998; Gunnell et al. 2003). Other indicators on family integration are less commonly used (marriages, fertility). The effect of parenting is a neglected area of suicide research (Stack 2000b). Some aggregate level research reports that fertility is negatively associated with suicide rates (Cutright and Fernquist 2000; Andrés 2005), while others fail to find an association (Gunnell et al. 2003). Concerning marriages, some research has not found an effect for the population at large (Lucey et al. 2005, in the case of Ireland). In a sample of 23 nations 1950–1985, a significant negative effect of marriages was reported for men in six nations (including Norway), for women in three (Lester and Yang 1998). Other research has confirmed a negative effect for young men (Cutright and Fernquist 2000; Gunnell et al. 2003).

3 The Concept of Social Integration

Human individuals need some kind of social integration, i.e. to be part of a larger social whole and form supportive and enduring interpersonal bonds. “The need to belong” is a fundamental human motivation (Baumeister and Leary 1995). Modern day Durkheimian studies have often equated integration with social support. Social control is also a part of the potential health benefits inherent in social integration (“advice and behavior

monitoring”, see Pescosolido and Georgianna 1989). Microsociologically, social integration at the interpersonal level can be understood as filling certain role requirements, such as the roles of husband and colleague. These role requirements are a foundation for identity and self-esteem (Thoits 1983). Social integration can also be conceptualized as the enacting of interaction rituals. In an interaction ritual two or more people are physically assembled in the same place, there is a mutual focus of attention and a sharing of emotional experience. Successful interaction rituals lead to a feeling of group membership, of confidence and strength (Collins 2004).

4 Linking Social Integration and Suicide

A number of studies have linked aspects of social integration to suicidal behavior. Retrospective studies of completed suicides (so-called psychological autopsies) indicate that persons who committed suicide were more isolated and had less social support than control groups. They more often lived alone, had fewer close friends and had changed residence more recently (see Heikkinen et al. 1993 for a review). Kung et al. (2003), in a large American case-control study, reports on the particularly lethal combination of living alone and having access to firearms.

There are also a number of individual-level studies showing that people who fill family and work roles have a lower risk of committing suicide. Suicide rates are particularly high for divorcees and separated persons. Divorced or separated men, and those who live alone, have significantly higher risks of suicide also when other sociodemographic risk factors are taken into account (Kposowa et al. 1995; Stack 2000b). A strong linear decrease in the risk of suicide with increasing number of children in marriage has been reported for women (Høyer and Lund 1993, based on Norwegian individual-level data). Unemployment and suicidal behavior have also been linked in a number of studies, more consistently in individual-level longitudinal studies than in aggregate longitudinal studies (reviewed in Platt and Hawton 2000).

What precisely are the mechanisms involved? Social support, social control and the benefits of enacting social roles or “interaction rituals” are all relevant mechanisms. Support made available through interaction with family, friends and colleagues constitute important resources for coping, resources that enable the individual to cope with acute or chronic stressors. The “behavior monitoring” part of social integration is probably of particular relevance when a person is under stress and has easy access to suicidal means, like firearms (cf Kung et al. 2003 and the interaction between living alone and having access to firearms).

Social integration may also influence suicidal behavior through its interaction with substance abuse. Norwegian studies from the 1970s (reviewed in Department of Health and Social Services 1995) found that influence from alcohol were present in about half of all suicides and suicide attempts. The majority of studies on male alcohol abusers in treatment show an excess mortality by suicide ranging from 5 to 10 (Rossow 1996). In most cases, drinking alcohol is a social event, and serves to bring people together. People who abstain from alcohol are more isolated and lonely than the population at large (Pedersen 1998). However, at least among chronic alcohol abusers, negative consequences outweigh the positive. According to a number of studies, alcoholics are prone to social isolation (see reviews in Skog 1991; Norström 1995). In some instances, then, heavy alcohol consumption contributes to social isolation and disintegration. On the other hand, social integration can diminish the risk of alcohol and other substance abuse developing in the

first place. In an American, prospective study, getting married and becoming a parent reduced the risk of developing alcohol disorders (Chilcoat and Breslau 1996). Low marital integration increases the odds of heavy drinking, thereby having both direct and indirect effects on the risk of dying in suicide (Stack and Wasserman 1993; Power et al. 1999).

The high suicide risk for alcohol addicts is one of many examples showing the connection between suicide and psychiatric disorders. Approximately 90% of completed suicides have a diagnosable psychiatric disorder, above all major depression (Joiner et al. 2005). Social factors can influence suicide risks indirectly, through its influence on depression and other disorders, and/or directly. Several studies indicate that social integration variables influence suicide risks independent of depression (Kung et al. 2003; Duberstein et al. 2004) and psychiatric admissions (Qin et al. 2003). However, there are also good reasons for believing that social disintegration can lead to depression and inflict emotional pain. Both divorce and unemployment have been linked to depression and other forms of distress in a number of studies (Mirowsky and Ross 2003). Several theorists in the field of “sociology of emotions” stress how depression and shame can be a consequence of broken and otherwise inadequate social relations (Collins 2004; Turner and Stets 2005). Shame may get into a spiral with anger, making it more difficult to establish new bonds, and is associated with identity and feelings of inferiority. In the research literature on the unemployed, the diminution of self-esteem, leading to an increase in depressive symptoms, is one of the most consistently reported findings (Jones 1988).

4.1 Individual, Network and Societal Effects

The use of aggregated time-series data has some advantages compared to microlevel data. The selection bias is a major weakness of microlevel data. An aggregate effect estimate, on the other hand, “...is expected to express the exogenous impact of the risk factor, net of selection effects” (Norström 1995: 297, see also Norström and Skog 2001). The model has to be correctly specified, however; omitting important variables will bias the estimates. Another advantage is the possibility of capturing what Norström (1995) terms direct and indirect effects of risk factors. Most directly affected are the persons who become divorced, unemployed, alcoholics and so on. Indirect effects are effects on individuals outside the exposed population. Take divorce as an example: Divorce may, first, have an effect on individuals that become divorced, through loss of emotional support and through a continuing conflict with the ex-spouse (Amato 2000). Second, divorce has effects in the networks of divorced persons. The most obvious example is the possibly negative effect on children in the family. Third, divorces may also have societal effects that go beyond divorced persons and their personal network. The impression of a rising number of divorces, given by the media or other sources, could create more insecurity in people that are still married, or, in Durkheim's terms, contribute to sexual anomia. The same logic applies to effects of unemployment and other indicators on disintegration.

Births, entering marriage, becoming employed, are all examples of *integrative* events, in contrast to the *disintegrative* events discussed so far. Integrative events can also have effects on an individual, network or societal level. Consider marriage: Besides the anticipated effects for married individuals in terms of social support, control and identity/emotional energy, marriage probably means more interaction and feelings of community in the network of individuals who marry, through their participation in the collective ritual of marriage. On the societal level, one could speculate that a rising number of marriages can breed feelings of optimism and strengthen belief in the institution of marriage.

5 Data and Method

5.1 Suicides

Data on annual suicide rates for males and females per 100,000 inhabitants were collected from various sources. The sources are the relevant official publications of Statistics Norway, and Gjertsen (1987, also based on official statistical sources). The period of analysis is the post-war period, starting in 1948, the first year comparable unemployment statistics were available.

Suicide rates are not age-standardized. Previous analyses have found that age-standardization has little effect on model estimates (Lester and Yang 1998; Norström and Rossow 1999). However, I include suicide rates among young men (age group 15–24) as a dependent variable (source Lester and Yang 1998, and official publications from Statistics Norway). As shown in the introduction, there has been a particularly steep increase in the suicide rate of young men during the post-war period. However, since suicides were very uncommon before 1970 in this age group, it proved hard to fit a good model of the noise structure. The analysis therefore starts in 1970.

5.2 Integration Variables

The choice of indicators on social integration is strongly limited by the available official statistics for such a long period of time. For the period as a whole, I have chosen the annual rates of unemployment¹ and four variables measuring family integration: divorces, separations, marriages and the total fertility rate.² As shown above, individual-level studies indicate the importance of these variables, and they either represent some disruption of social bonds (separation, divorce and unemployment) or the forming of a new social bond. However limited, they represent the principal means of social integration: family and work. As far as I know, separations have not been used in earlier time-series research. Up to 1993 a divorce was granted if the marriage partners agreed to have a divorce, and the partners were separated for at least a year. If only one of the marriage partners wanted a divorce, the obligatory separation period was 2 years. In the new marriage law of 1993 the separation period was set to 1 year, regardless of any disagreement between the partners.³ Statistics on the number of separations are available for the whole time period 1948–2004, with the exception of 1956–1958. I have also included registered alcohol consumption⁴ as a variable. Alcohol consumption could be considered a confounding factor, but is also an

¹ From 1948 and onwards there is a comparable statistic on unemployment in percent of the workforce, based on registrations at employment agencies. In 1999 definitions were changed, leading to a fictitious increase in the unemployment rate, which is captured by a dummy variable for this year.

² The total fertility rate is defined as the average number of babies born alive per woman in the course of her life, under the provision that the fertility pattern observed in a chosen year applies to a woman's entire reproductive period (15–49 years), and that deaths do not occur.

³ Up to 1993 a divorce could be granted without a preceding period of separation, for instance due to adultery. Still, relatively few divorces were granted on such grounds. According to the new marriage law, as a main rule the divorce must be preceded by a separation period.

⁴ Regarding the alcohol variable, it should be noted that Statistics Norway did not publish statistics on alcohol consumption for 1998. The figures for alcohol consumption that year are based on estimates made by Horverak et al. 2001, Table 5, p. 24. In general, statistics on alcohol consumption have become less reliable since 1995.

indicator on disruption of social ties caused by heavy drinking. In addition to total alcohol consumption, other measures based on sales of beer and spirits are considered. A finding in both Norway and Sweden has been the absence of any significant effect of wine consumption on suicide rates in the two countries (Norström and Rossow 1999).

5.3 Economic Variables

Two variables indicating changes in national and private economies⁵ are included: The first is GNP measured in fixed prices per 1,000 inhabitants. The second is cases of public assistance/social assistance per 1,000 inhabitants (missing data for 1965 filled in by means of linear interpolation⁶). The increased risk of suicidal behavior and distress following social disintegration could partly be attributed to worsening economic circumstances. Low income and economic strain is associated with depression (Halvorsen 1998; Pihl and Starrin 1998), suicidal thoughts (Pihl and Starrin 1998) and elevated risks of committing suicide (Cutler et al. 2000; Stack 2000a; Kposowa 2001; Qin et al. 2003).

5.4 Time Dummies

A dummy is included for 1965, due to missing data on social assistance⁶ and the uncertain nature of marriage statistics for that year. The official number of new marriages in 1965 is probably too low (Mamelund et al. 1997: 30). Dummies are also included for the years 1999, due to changes in the definition of the unemployment rate this year, 1956–58, when data on separations are missing, and 2000, when there was a change in statistical definitions concerning separations.⁷ In official statistics, separations in 1956–1958 are given as the mean number of separations in the period 1956–1960. In addition, scatterplots between the differenced independent and dependent variables were studied to see if there were outliers that could lead to biased estimates.

Descriptive statistics for the chosen variables are displayed in Table 1.

5.5 Method

The method used is the Box-Jenkins approach to time-series analysis. A semilogarithmic model was applied, following Norström (1995):

$$\text{Ln } S = \alpha + \beta'X + \varepsilon$$

⁵ Another variable reflecting economic circumstances was also tested: GNP of households, i.e. the value of goods and services used by households or by consumer organizations. This variable is highly correlated with the total GNP measure. The total GNP per capita had a somewhat stronger effect than GNP for households, the household GNP was therefore excluded from the equations.

⁶ In 1965, public assistance was replaced by social assistance in accordance with the Social Care Act of 1964. No statistics were compiled for 1965. In models including the number of cases of social assistance per 1,000 inhabitants, a dummy is used for the years 2003–2004, since the social assistance statistics for these years are not directly comparable with earlier statistics (see Statistics Norway's website, http://www.ssb.no/english/subjects/03/04/30/soshjelpk_en/).

⁷ Before 2000, all separations where the husband lived in Norway or in a foreign country were included, since 2000 only separations where the husband lives in Norway are included.

Table 1 Descriptive statistics, dependent and independent variables

	Mean	S.D.	N
<i>Dependent variables</i>			
Male suicides per 100,000 inhabitants (log)	2.72	0.28	57
Female suicides per 100,000 inhabitants (log)	1.59	0.39	57
Male suicides per 100,000 inhabitants (log), age group 15–24 (1970–2004)	2.92	0.39	35
<i>Independent variables</i>			
Registered alcohol consumption in litres of pure alcohol per inhabitant 15 years +			
Total	4.54	1.03	57
Beer and spirits	3.86	0.74	57
Beer	2.22	0.68	57
Unemployment in percent of work force	2.10	1.38	57
Divorces per 1,000 inhabitants	1.44	0.73	57
Divorces per 1,000 inhabitants, males in age group 15–24 (1970–2004)	0.59	0.33	35
Total fertility rate	2.23	0.48	57
Marriages per 1,000 inhabitants	6.23	1.30	57
Marriages per 1,000 inhabitants, males in age group 15–24 (1970–2004)	21.82	15.93	35
Separations per 1,000 inhabitants	1.71	0.93	57
Gross national product in million NOK per 1,000 inhabitants (fixed prices)	180.50	87.36	57
Public assistance/social assistance per 1,000 inhabitants	19.74	11.47	57

where S is the suicide rate, α is the constant, X is a set of explanatory variables, β a vector of parameters and ε the noise term, the unexplained variation in the suicide rate, due to factors not included in the model. The constant is included to capture possible drift, systematic changes in the unexplained factors.

The semilogarithmic model assumes a curvilinear relationship between suicide and the explanatory variables. In the semi-logarithmic model, the estimated parameters can be interpreted as follows: An increase in x of one unit produces a fixed percentage increase in y . The model is multiplicative. It is assumed that the predictors of suicide interact multiplicatively, amplifying the impact of each other. For instance, when both divorces and alcohol consumption become more widespread, one would expect these factors to amplify the effect of each other. There is some evidence for this in the research literature. Alcohol and substance abusers are reported to be particularly vulnerable for disruptions of affective relationships (Heikkinen et al. 1993). Unmarried, unemployed men use more alcohol than their married counterparts, possibly as a result of less social control (Mastekaasa 1993). Employment is associated with better adjustment among divorced individuals (see Amato 2000 for a review).

A preliminary analysis showed strong trends and autocorrelation in the data, both for dependent and independent variables. The time series have therefore been differenced. The unit of analysis is annual changes. This is also in accordance with causal thinking: changes in x are followed by changes in y . The risk of omitted variable bias is reduced (Norström 1995). On the other hand, when differencing is performed, information is lost. There is a higher risk of not being able to demonstrate a relationship that actually exists (type II error). The risk of a type II error combined with the small number of observations warrants a fairly “liberal” significance level. All estimates statistically significant at the 10% level or better are reported. The constant was included only if statistically significant ($p < 0.10$), following Ramstedt (2001).

6 Results

6.1 Men

First, two models including all variables were estimated, one using divorces as the indicator on family break-up, the other using separations (results not shown). The inclusion of GNP created problems in the attempt to estimate a good model of the noise structure (moving average models did not converge), and was therefore taken out of the full model. Testing effects of the various alcohol measures, little difference was found. All effects had a negative sign. The combined beer and spirits consumption was chosen as the alcohol consumption indicator.⁸ In the first model for men, including divorces and all other variables, marriages and social assistance had a significant effect at the 10 percent level. In the second model there was a significant effect of separations only. The “separations model” had a sizably better model fit.

With few observations, it is important to have a simple model. In the revised model, the three least influential variables (alcohol consumption, fertility and social assistance) in the full “separations model” are removed (all with *t*-values below 0.9).

Annual changes in the number of separations emerge as an influential predictor of suicide rates. One of the other family integration variables (marriages) is also influential. When the number of separations per 1,000 inhabitants increases with one, the male suicide rate increases by 42% (all else equal). The unemployment rate was a significant predictor at the 10% level, but not in the expected direction. Surprisingly, when the unemployment rate goes up, male suicides show a downward trend. The Box-Ljung Q statistic, checking for autocorrelation in the residuals, indicates that there are no systematic trends in the residuals (the null hypothesis of white noise cannot be rejected).

In contrast, divorces do not influence the suicide risk for males in postwar Norway (right side of Table 2). Separations seem to represent a more sensitive measure of the consequences of marital breakups. As can be seen from the diagnostics section, the model that includes separations has a sizably better model fit than the other model (models were tested using the diagnostic criteria included in the SAS proc arima-program). This is indicated by the Aikakés Information Criterion (AIC) and Schwartzs Bayesian Criterion (SBC) criteria. Lower values on these criteria are signs of a better goodness of fit.⁹ It is interesting that conclusions regarding the effect of other variables are also affected by the choice of indicator on family break-up. Marriages and unemployment are statistically significant in the “separations model” only.

Testing the effect of GNP in revised models with fewer variables, indicates that main conclusions regarding effects of separations and divorces are not affected by the exclusion of the GNP variable. Replacing the marginally significant effect of unemployment with GNP in Table 2 does not result in a better model fit, although the (negative) effect of GNP per capita is statistically significant at the 10% level. The estimated influence of separations remains largely the same. In fact, the significant, negative effect of GNP is visible

⁸ All alcohol consumption variables for men are negative and statistically insignificant in this time period. The effect of combined beer and spirits consumption is the least negative, and comes closest to the positive effect we would expect given earlier research and individual-level studies. It is also in accordance with the results of Norström and Rossow (1999), using a similar statistical procedure for Norway, albeit for a longer time period.

⁹ The estimate for separations in the full model correlates with estimates for social assistance and fertility (over 0.6). However, when these variables are re-entered in the revised model, their effects are far from significant and do not contribute to a better model fit. Standard errors are only modestly affected.

Table 2 Estimates of semilogarithmic models for the male suicide rate

	Model 1: with separations		Model 2: with divorces	
	Estimate	Std. error	Estimate	Std. error
Constant	−0.014***	0.003	–	–
Unemployment	−0.024 [†]	0.014	−0.012	0.022
Separations	0.418***	0.065	–	–
Divorces	–	–	0.181	0.134
Marriages	−0.077***	0.024	−0.050	0.042
<i>Noise</i>				
MA(1)	0.795***	0.119	0.427**	0.145
<i>Diagnostics</i>				
Q statistics (to lag 24)	16.67, $p = 0.825$		18.59, $p = 0.725$	
Variance	0.006		0.007	
Std. Error	0.076		0.085	
AIC	−120.41		−110.11	
SBC	−102.18		−93.90	
Residuals	56		56	

Norway 1948–2004 Differenced data. Maximum likelihood estimation (dummy variables for 1956–1958, 1965, 1999 and 2000 included, not shown)

[†] $p = < 0.10$, ** $p < 0.01$, *** $p < 0.001$

only when separations are included in the model. GNP per capita has a close to zero effect in models that does not include the separation rate (results not shown).

6.2 Women

The same strategy was followed for women as for men. Testing different alcohol measures, there was a marked positive effect of beer consumption, and a positive, but weaker effect of other alcohol measures. Beer consumption was therefore used in all models analyzing suicide rates for women. In the full “separations model” (excluding GNP), unemployment, fertility and social assistance had the least significant effects and were taken out in the revised model. The final result is shown in Table 3 (left side). Again, separations turn out to have a powerful influence on suicide rates, although the strength of the influence is lower than for men. The estimated effects of beer consumption and marriages are fairly strong, but fail to reach the 10% significance level. As can be seen from Table 3 (right side), a model using divorces as indicator on family dissolution has a less satisfactory model fit. Conclusions regarding the impact of other variables are also affected. The estimated effect of beer consumption is halved and becomes insignificant in a model that includes separations and not divorces. There is a high correlation between estimates for separations and GNP (higher than 0.7 in several models). However, and similar to men, including GNP in simplified models does not add to the model fit and thus the main conclusions are unaltered.

One problem with the results reported here, however, is the unexpected effect of alcohol consumption, given findings in earlier research. There are good reasons for assuming that the estimated results for alcohol should be interpreted in light of substantial and increasing measurement problems concerning alcohol consumption. The inclusion of dummy

Table 3 Estimates of semilogarithmic models for the female suicide rate

	Model 1: with separations		Model 2: with divorces	
	Estimate	Std. error	Estimate	Std. error
Beer consumption	0.167	0.126	0.290*	0.135
Separations	0.254**	0.113	–	–
Divorces	–	–	0.044	0.159
Marriages	–0.049	0.045	–0.082	0.054
Noise				
MA (1)	0.730***	0.106	0.659***	0.117
Diagnostics				
Q statistics (to lag 24)	11.43, $p = 0.978$		15.90, $p = 0.860$	
Variance	0.018		0.020	
Std. error	0.136		0.142	
AIC	–57.25		–52.46	
SBC	–43.07		–38.28	
Residuals	56		56	

Norway 1948–2004. Differenced data. Maximum likelihood estimation (dummy variables for 1956–1958, 1965 and 2000 included, not shown)

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

variables for two outliers in the 1980s (1981, 1982) did not alleviate the problem. This has also been noted in other research on suicides in post-war Norway (Ramstedt 2001, who ends up “solving” the problem by shortening the observation period for Norway to 1950–1980). Primarily it seems to be the measurement of spirits consumption that has become less accurate. The unregistered consumption of spirits increased from 1979 to 1994, while registered consumption went down (Department of Health and Social Services 1995; Horverak 2006). The lack of sex-specific alcohol measures is also a problem, as women’s share of total alcohol consumption has increased considerably (Horverak 2006). One possible solution to these problems is to find other indicators of heavy alcohol consumption. Alternative indicators could be based on recorded deaths from alcohol-related causes. The two main causes of death directly associated with alcohol in ICD-10 are deaths from alcohol abuse (F10, including alcoholic psychosis) and cirrhosis of the liver. Of these two indicators, it was clearly deaths from alcohol abuse that had the strongest link with variations in the male suicide rate.

Data on changes in deaths from alcohol-related causes has been readily available only from 1970 and onwards. The time period is rather short. But replacing the measures of registered alcohol consumption with male deaths from alcohol abuse (per 100,000 males) resulted in a better model fit and more plausible results for men, although the estimated effect was statistically insignificant¹⁰ (results not shown). Adding male deaths from alcohol abuse to the model shown in Table 2, the estimated effect of separations in the time period 1970–2004 is still substantial and significant at the 10% level (estimate 0.20, t -value 1.93). Conclusions remain the same concerning the effects of separations and divorces, in this shorter time period.

¹⁰ When male deaths from alcohol abuse increase by 1 per 100,000 inhabitants, there is a 2% increase in the male suicide rate (t -value 1.29, time period 1970–2004, 1 AR-parameter). Data on deaths from alcohol abuse are found on Statistics Norway’s website (www.ssb.no).

There is, of course, also the possibility that effects of alcohol consumption really have changed. Rossow et al. (2005), reports that the association between alcohol intoxication and attempted suicide among boys (age group 13–19) in Norway was significantly lower in 2002 than in 1992. Several reasons could account for this; both less stigma connected to alcohol consumption in a more “wet” drinking culture, and less overlap with psychiatric problems. However, among girls a significant part of the increase in attempted suicides could be attributed to increasing use of intoxicants (ibid.). In Sweden, it has been shown that alcohol-related mortality in 1995–2002 has increased less than expected, given the rising trend in total (registered and unregistered) alcohol consumption; suicides show a decreasing trend instead of an expected increase (Andreasson et al. 2006).

6.3 Suicides among Young Males

Does a weakening of social integration also contribute to the explanation of the rise in suicides among young men? The analysis starts in 1970, which marks the beginning of a long period with increasing suicide rates for this group. In addition, I use data on marriage and divorce rates that are specific for young males. Unfortunately, age and sex-specific separation rates have not been available. Two dummy variables are included (for the years 1986 and 1999), covering changes in statistical definitions for marriages, divorces and unemployment.

Since the time period is short, the analysis is troubled by collinearity when all variables are included in a “full model”. The estimated first model (Table 4) is basically the same as the “divorce model” in Table 2, except that marriage and divorce rates are specific for males in this age group. Only the parameter estimate for marriages has a statistically significant effect. A decline in the marriage rate for young males seems to have contributed to an increasing number of suicides. To see how robust this conclusion is, the model was tested and revised in two consecutive stages. In the first stage, different measures of alcohol consumption were added. Changes in beer consumption turned out to have a sizeable effect, considerably stronger than for men in general. This seems reasonable; other research has shown that beer is by far the most popular beverage in age groups under 30 in Norway, a tendency that became increasingly stronger during the period 1973–1994 (Department of Health and Social Services 1995). Second, it was examined whether the inclusion of fertility and the “economic” variables (GNP, social assistance) had any bearing on the conclusions drawn. GNP had a significant, negative effect, and also contributed to a stronger effect of beer consumption. The estimate for fertility is marginally insignificant at the 10% level ($p = 0.15$), but contributed to a better model fit and is included in the final model. The estimates for unemployment and divorces were excluded. As can be seen from Table 4, the revised model (model 2) fits the data considerably better than model 1. The effect of marriages is only somewhat reduced in the second model.¹¹ As mentioned, age and sex-specific separation rates have not been available. When the total separation rate is entered in the revised model, the effect is far from significant, although the estimate has the expected sign. There is, however, a collinearity problem, as estimates

¹¹ The correlation between the parameter estimates for GNP and marriages are 0.66, which implies the possibility of a collinearity problem. However, standard errors are barely affected when both variables are included. Of the two variables, marriages have a considerably more consistent and strong effect. In fact, when marriages are excluded from the model, the estimated effect of GNP is very weak and statistically insignificant. The effect of GNP increases markedly when marriages in this age group are included.

Table 4 Estimates of semilogarithmic models for the male suicide rate in Norway 1970–2004, age group 15–24

	Model 1		Model 2	
	Estimate	Std. error	Estimate	Std. error
Unemployment	−0.030	0.037	–	–
Marriages 15–24	−0.035**	0.010	−0.029**	0.010
Divorces 15–24	0.338	0.305	–	–
Beer consumption	–	–	0.765***	0.248
GNP	–	–	−0.005*	0.002
Fertility	–	–	−0.337	0.236
Noise				
AR (1)	−0.715***	0.171	−0.767***	0.166
AR (2)	−0.599***	0.166	−0.605***	0.159
Diagnostics				
Q statistics (to lag 24)	20.99, $p = 0.522$		19.21, $p = 0.632$	
Variance	0.023		0.019	
Std. error	0.152		0.138	
AIC	−24.96		−30.09	
SBC	−14.28		−17.88	
Residuals	34		34	

Differenced data. Maximum likelihood estimation (dummy variables for 1986 and 1999 included, not shown)

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

for marriages and separations are highly correlated. If marriages in this age group are excluded from the analysis, the separations variable has a strong and statistically significant effect. This model, however, is clearly less fitted to the data than the revised model presented in Table 4. Neither does the replacement of fertility with separations result in a better model fit.

7 Discussion

7.1 Main Findings

Consistently, different aspects of family integration contribute to the explanation (in a statistical sense) of Norwegian suicide rates. In the post-war period, a rising number of separations are clearly related to increasing suicide rates, both for men and women. The male suicide rate drops when more people get married. Since 1970, a falling number of marriages and increased alcohol (beer) consumption seems to be relevant for an understanding of the suicide rate among young males. The estimated effect of beer consumption among young males (possibly also for women) is, as indicated earlier, in accordance with a “post-Durkheim” reformulation of integration theory; heavy alcohol consumption is a risk factor for social isolation and conflicts. Unemployment has a negative effect for males, contributing to a reduction in the suicide rate.

7.2 Findings on Social Integration in Perspective

All in all, the results point to the weakening of family integration as perhaps the most important factor associated with increasing suicide rates in post-war Norway. This conclusion fits well with conclusions from recent studies in other rich, western countries. The importance of changing relationship patterns for the increasing suicide rate among young males is underlined by Gunnell et al. (2003), and divorces have been implicated as a factor behind a rising number of teenage suicides in the USA (Cutler et al. 2000). In an impressive, register based study of all suicides in Denmark in the period 1981–1997, using a nested case control design, Qin et al. (2003) reports that single marital status (apparently including both the divorced and other singles) is by far the most significant risk factor for male suicides in terms of population attributable risk (apart from psychiatric admissions).

There is also other evidence that support a link between weaker family integration and higher suicide rates. The family structure of different birth cohorts has changed. A rising proportion of births in the Norwegian post-war period has been non-marital, indicating that an increasing percentage of children have been raised by a single parent in at least parts of their childhood. In a study of 14 nations (including Norway) Stockard and O'Brien (2002) find that the percentage of non-marital births in a cohort has significant, positive effects on age-period-specific suicide rates. One of the hypothesized links is that children growing up in single-parent families receive less attention and supervision from adults, and are more prone to be influenced by peers. Accordingly, a weakening of “cohort-related social capital” following rapid changes in the family structure could be one of the factors behind the strong increase in youth suicides.

Regarding the influence of marriage one could perhaps have expected that marriages become less important as more people cohabit. But this could also change the symbolic meaning of marriage. As it is no longer a social obligation, marriage becomes a stronger symbol of unity and “real love”. In a Durkheimian light, cohabitation represents a less integrated type of union than marriage, more exposed to the ills of anomia. Cohabitators experience their unions as more insecure and unstable than the married (Brown 2000, 2003). A significantly higher suicide risk for cohabitators compared to married persons has been reported for Denmark (Qin et al. 2003, OR = 1.32 for men, 1.19 for women).

I find no significant effect of divorces, neither for males nor females. This is similar to the finding of Norström (1995), in the case of Sweden. However, as we have seen, concluding that family dissolution is of no consequence for the risk of suicides would be premature. The estimated effect of separations is considerably stronger than the effect of divorces, both for men and women. As far as I know, this has not been shown in previous time-series studies. Higher suicide rates for separated compared to divorcees is confirmed by Norwegian individual-level data¹² (Gjertsen 2004). Does the finding make sense in a social integration perspective? Divorces are a consequence of a long-term process, often beginning with marital discord years before the resulting divorce. Separations are closer in time to the “real” marital conflict and breakup. For social integration, consequences are probably more negative in the short-term than in the long-term. By the time a divorce is granted, some may even have found a new partner. In terms of identity, it takes time to adjust, coming to terms with the loss. At least for some, “time heals all wounds”. In terms of mental health, the consequences of a partnership split are more negative the more

¹² The average suicide rate in Norway 1994–1998 for separated men, aged 30–79, was 69.0 per 100,000 inhabitants, compared to 43.3 for divorced men and 12.3 for married men. For women the corresponding figures were 29.7, 22.0 and 5.0 (Gjertsen 2004).

recently a split has occurred, according to a British study (Willits et al. 2004). However, other research questions this, and finds a more enduring effect of marital dissolution on subjective distress (Mastekaasa 1995).

The generally insignificant effect of unemployment is in accordance with several recent, aggregate level studies (Neumayer 2004; Andrés 2005). Neumayer (2004) even finds a negative effect; both suicide mortality and many other forms of mortality drops when the unemployment rate goes up (based on panel analysis for German states, 1980–2000). However, Neumayer does not control for alcohol consumption. As he points out, some research has found that lifestyles become healthier, including less drinking, in “bad times” (Ruhm and Black 2002). My finding that unemployment reduces the male suicide rate could be a result of failing to adequately capture changes in “real” alcohol consumption. If there is an effect of decreasing alcohol consumption in “bad times”, it could be underestimated when registered alcohol consumption is used as an indicator on total consumption level.

7.3 Limitations

There are several limitations to the present study. Due to lack of data, a number of important variables are not included. The increasing use of drugs from the 1970s could play a role. Drug use is a risk factor for suicide and suicide attempts (Rossow and Lauritzen 1999; Cutler et al. 2000; Dark and Ross 2002). As with the use of alcohol, there is a connection between heavy drug use and poor social integration (Rossow and Lauritzen 1999; Dark and Ross 2002).

There are also limitations concerning the measurement of dependent and independent variables. Official suicide statistics probably underestimate the true number of suicides, an underestimation that has not been constant over time, according to some researchers. Giertsen and Morild (1993) have concluded that changes in the registration procedure may be responsible for a “substantial part” of the rise in suicides from 1960s to 1980s. On the other hand, Gjertsen (2004) discusses the quality of Norwegian suicide statistics and concludes that observed changes in suicidal behavior should be viewed as real. A general conclusion on the basis of recent studies is that measurement errors do not substantially affect the results of most sociological work (Stack 2000a). From 1996 deaths in Norway have been classified according to the 10th revision of the International Classification of Diseases (ICD-10). One cross-country study of suicide rates finds that this revision is associated with an overall change of -0.74 suicides per 100,000 inhabitants. This is interpreted as a consequence of the many more categories of deaths of unknown causes and intent to choose from in ICD-10 (Pearson-Nelson et al. 2004). Deaths where it is unknown whether the death was intended or not is a category that has been used in a very limited degree in Norway, both before and after 1996. However, there has been an increase in the use of the “unknown and unspecified” categories after 1996.¹³ Adding a dummy for 1996 to the equations does not alter the main conclusions in this article.¹⁴

Regarding the independent variables, errors mentioned earlier are related to the measurement of alcohol consumption, since a substantial proportion of alcohol consumption is

¹³ See Statistics Norway’s website, <http://www.ssb.no/emner/03/01/10/dodsarsak/> (in Norwegian, mostly)

¹⁴ A small exception is the revised model in Table 4, where an inclusion of a 1996 dummy lead to an insignificant estimate for GNP, while the other variables retain their significant effects at the 10% level. The model fit is seriously reduced when the 1996 dummy is added.

unrecorded, and this proportion varies over time. Unsystematic measurement errors in the independent variables will tend to reduce parameter estimates. The measures of family integration are crude, but the best that are readily available for the time period analyzed in this article.¹⁵

The limited number of observations is a main problem in this type of research. The combination of few observations and differenced data increases the risk of making a type II error. Few observations also easily cause collinearity problems, and outliers can influence estimated effects quite substantially.

Acknowledgments I wish to thank Arne Mastekaasa, Lise Kjølørød and an anonymous reviewer for valuable comments to earlier versions of this article, and Finn Gjertsen for helpful discussions and assistance in finding the appropriate data. A special thank is due to the late Ole-Jørgen Skog, whose helpfulness and expertise in these matters was greatly appreciated by the author. Lastly, I would like to thank the Research Council of Norway and Statistics Norway for funding the project

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¹⁵ From 1960, an alternative and more sophisticated measure of divorces is available, i.e. the estimated percentage of marriages that will be dissolved after 40 years of marriage, given the observed divorce pattern in a given year. Using this variable in models similar to those presented in Tables 2 and 3, for the period 1960–2004, does not change any of the main conclusions regarding the effect of divorces (results not shown). For women, while separations do not have a significant effect in this period, a model including separations still has a better model fit than a model based on divorce as the measure of family dissolution.

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PAPER III

Paper III

Social integration in late modern society. The case of Norway 1973-2005

Anders Barstad

Abstract

Robert Putnam and others have claimed that there is a decline in social attachments and trust, which falls into a longstanding preoccupation in sociology with modernity's negative influence on social integration. Using Norway as a case, I show that during the last 30 years, there is no general decline in social integration. The case is rather the opposite for friendship interaction and confiding relationships outside of family circles. The evidence for Norway, together with similar survey evidence for Sweden and Denmark over a 30-35 year period, consistently shows social isolation either to be stable or decreasing. However, trends have generally been less favourable in the 1990s and less favourable for men than for women. Why trends in the Nordic countries seem to contrast with the US is unclear, but is consistent with recent research showing that a generous welfare state does not necessarily "crowd out" social support and communal relations.

To be resubmitted to *European Sociological Review*.

Introduction

Social disintegration, “the loss of community”, has historically been a major sociological concern. The pioneers of sociology were deeply concerned with the effects of modernity's breakthrough on social relations. This can for instance be seen in Friedrich Engels' description of London in his 1845 classic on “the condition of the working class in England”: “The dissolution of mankind into monads, of which each one has a separate principle and a separate purpose, the world of atoms, is here carried out to its utmost extreme” (Engels, [1845] 1993: 37). For Emile Durkheim, another of sociology's “founding fathers”, social disintegration was modernity's main problem. He saw increasing suicide rates in Europe as a consequence of disintegration.

The theme of social disintegration has continued as part of social science discussions up to the present. An updated and influential version of the “community lost”-hypothesis is Robert Putnam's contention that “social capital” is declining. When reading Putnam, one is in some respects reminded of Engels 150 years before; as Engels he is concerned with the loosening of social bonds, “the world of atoms”. For Putnam, “...social capital refers to connections among individuals - social networks and the norms of reciprocity and trustworthiness that arise from them” (Putnam, 2000: 19). According to his analysis social capital has eroded in America during the last couple of decades. Activity in voluntary organizations and voter turnout are declining, there is less informal socializing, the bonds within the family are loosening and Americans are less trusting than before.

In an earlier article, Putnam pointed to a number of unresolved questions. One in particular will be taken up in this article: Is the US a special case (Putnam, 1995)? Norway could serve as an interesting comparison. Has a similar decline in social attachments taken place in a society heavily influenced by welfare state intervention? Welfare state interventions can be conducive to social participation, for example by reducing economic marginalization and inequality, factors connected to the decline in social capital by several authors (Putnam, 2000, Wuthnow, 2002, Costa and Kahn, 2003). On the other hand, there are also those who have criticized the welfare state for a “crowding out” of solidary relations. According to James Coleman, when persons are made less *dependent* on one another, by affluence, government aid or other factors, the result is a depletion of social capital (Coleman, 1990). A second research question relates to inequality. Is the “community lost”-hypothesis relevant for some groups, not for others? According to Wuthnow (2002), virtually all the decline in associational membership rates in the US took place among the marginalized segments of the population. Some maintain that differences between educational groups are rising (Hage and Powers, 1992, Costa and Kahn, 2003), while others have shown different trends concerning gender (Hall, 1999, Costa and Kahn, 2003) and age (Vogel et al., 2003, Thorpe, 2003). Accordingly, I will explore the question of inequality in relation to gender, age groups and educational level.

The concept of social integration is preferred to the concept of social capital. In many ways social capital is “old wine in new bottles”¹. Both concepts focus on social connections, but Putnam's social capital perspective has a particular interest in *civic* connections, while *intimate* family and friendship connections loom larger in the perspective of individual-level integration².

Theoretical considerations

Social integration

Integration means connecting parts into a larger whole. When we talk about social integration, the parts are usually individuals, groups or large-scale social categories like classes. The social wholes can be groups, nation states or “world society”. The topic for this article is primarily the integration of individuals into social groups.

Conceptualized this way, social integration has both subjective and objective dimensions. Subjectively, social integration is related to the experience of group membership and feelings of belonging or loneliness. Objectively, social integration is related to certain quantitative and qualitative characteristics of the relationship between the individual and the group. In the tradition following

Durkheim, face-to-face interaction frequency is one of the key quantitative characteristics, considered to be the glue that binds people together. Face-to-face interaction is the most fundamental way of connecting to another human being. Other quantitative characteristics are the number of social roles filled and the diversity of ties. According to "role accumulation" theory, social integration at the interpersonal level means filling role requirements, such as the roles of husband and colleague. The greater the number of roles, the stronger is the sense of identity and meaningful existence (Thoits, 1983). Some roles may not be mutually supportive, but can still give a strong sense of purpose and connection to others (filling the parental role for a young child is an obvious example). The importance of diversity is underlined by the "strength of weak ties" argument (Granovetter, 1983), and the related concepts of "bridging" and "bonding" social capital. Many of the ties in the workplace and voluntary organizations exemplify what Putnam calls bridging (inclusive) social capital, where people are connected to others different from themselves, in contrast to bonding (exclusive) social capital, where people connect to others with a similar background and develop a more exclusive identity (Putnam, 2000: 22).

What are the most important qualitative dimensions? To satisfy "the need to belong", interaction with other group members should be supportive or in other ways affectively rewarding (Baumeister and Leary, 1995). For instance, if co-workers or family members are harassing the individual, interactions will probably be associated with feelings of anger, distrust and distance. A strong sense of being a group member is highly correlated with feelings of enthusiasm for the group (Bollen and Hoyle, 1990). The concept of more or less successful "interaction rituals" represents an alternative perspective on the qualitative dimension. Sociable conversation is the basic interaction ritual, "talking just for the sake of keeping up friendly contact" (Collins, 2004). Important features of successful rituals entail, among other things, a common focus of attention and a rhythmic synchronization of utterances and bodily movements. The achievement of rhythmic synchronization is correlated with liking and feelings of rapport (Collins, 2004: 76).

In this article I will, on the basis of the Norwegian Level of Living Surveys, mainly look at integration in relation to four types of groups. The first two are family and friends, which represents bonding and "strong tie" relations. The second two are associational groups and work/school groups, which represents bridging, "weak tie" relations. A range of surveys and other data point to the importance of these groups for interaction, support and a sense of belonging and community³.

Unfortunately, the Level of Living Surveys have few direct measures of social support and other qualitative aspects of social integration. Until recently, the subjective dimension has also been poorly covered (see data section for details). The measures are largely based on actual or presumed frequency of face-to-face interaction. Concerning family and friends, questions are asked on frequency of contact, for other groups the measures are indirect: Self-reported time use or "activity" (in voluntary organizations). Although not the same as social interaction, heavy time use and activity indicate frequent interaction and the performing of salient social roles.

The concept of social integration used here resembles what several authors call the "social network"-component of social capital (Oorschot et al., 2006, Lillbacka, 2006). Rothstein and Stolle (2003: 4) define social capital at the individual level as "...both the size and quality of A's network as well as A's trusted relationships". It is primarily the first of these dimensions, then, that are captured by the concept of social integration. However, the quality and quantity of social networks are obviously not independent of trust. Generalized trust is positively related to socializing with friends (Oorschot et al., 2006). In close, intimate relationships the confiding of inner feelings is based on mutual (particularized) trust (Coleman, 1990).

Social integration in late modernity

The term "late" or "high" modernity is a term that acknowledges the profound changes in Western societies during the last 3-4 decades, but sees these changes as occurring within the logic of modernity, so to speak. Keywords are globalization, new information and communication technologies

and a "post-industrial"/"informational" economy (Giddens, 1990, Hage and Powers, 1992, Castells, 1996). What happens, then, with social integration in a society faced by these changes? Broadly, one can distinguish between three categories of responses: The pessimists, who see the new trends as causing social disintegration (Putnam seems to be among these), the optimists, who on the contrary see new possibilities and the development of a "warmer" society, and the "in between" position, who see some of both.

Among the pessimist one finds, besides Putnam, Johan Galtung, who at the 1995 UN Social Summit in Copenhagen, maintained that perhaps most societies at the end of the twentieth century are in a condition of advanced social disintegration (Galtung, 1995). Like Friedrich Engels, Galtung used the concepts of monads and atoms. Completely autonomous units are in contact as little as possible, and live parallel lives. Galtung illustrated this with statistics showing the large percentage of people living alone in Sweden.

Among the optimists, one finds Jerold Hage and Charles Powers. They maintain that there is a "...new reality of more intimate social relationships in post-industrial society" and that the "...post-industrial transformation is creating a society predicated upon *gemeinschaft*" (Hage and Powers, 1992: 202). The analysis of Tönnies might have been correct for the industrial, but not for the post-industrial, era. Social roles are less routine than before, less controlled by conformity to external rules. Thereby interpersonal commitment in roles is becoming more important, role style is of growing importance as role scripts are losing their content. Besides, technology increases the possibilities for interaction through telephone and computer networks, cheap and quick transportation and so on. These increased opportunities to interact will make role relations more affect-laden, according to Hage and Powers.

A similar, rather optimistic, perspective can be deduced from postulated *cultural* changes following in the wake of a post-industrial transition. According to Inglehart and Baker (2000), the population of advanced industrial societies has increasingly emphasized "self-expression" over "survival" values. Self-expression values give priority to self-expression and quality-of-life over economic and physical security, and emphasize the virtues of friendship, trust, leisure, equal gender rights and tolerance toward outgroups. Inglehart and Baker maintain that these values are related to the rise of post-industrial society. The percentage employed in the service sector has a positive influence on the weight given to self-expression values, in addition to economic wealth. Compared to industrial society, a service-dominated society is concentrated less on machinery and things, more on encounters and communication between people (cf. Bell, 1973). The heightened economic security is thought to benefit trust and tolerance of diversity. Self-expression values should promote at least some forms of social integration, particularly friendship and the social participation of out-groups.

Among those who take a stand in "the middle", one could perhaps place sociologists like Anthony Giddens (1990) and Craig Calhoun. Calhoun (1992) points to one of the key characteristics of modernity: the increasing frequency, scale and importance of indirect relations (relations that are not face-to-face). Individuals are indirectly connected through information technology, large-scale markets and bureaucratic organizations. The consequence is that societal integration, the coordination of actions between individuals and groups, has become far more complex and less visible. Although direct relations have not diminished in numbers, their psychological and sociological significance change. Direct, face-to-face relations "here and now" do not constitute the world in the same way as before; individuals face the challenge of understanding the system and creating a sense of being at home in a world where coordination of actions is increasingly non-local. This points to a possible divergence between objective and subjective measures. Feelings of loneliness, perhaps of a more existential kind, and a sense of being "homeless", may increase even if interaction frequencies are maintained on a high level.

Prior empirical research

In the following review, the terms "social capital" and "social integration" will be used interchangeably. However, "social capital" will refer to the social network component described

earlier (unless otherwise stated). Most authors find some evidence of a decline in social capital, broadly conceived, in the US, but there is disagreement on how pervasive and serious these changes are. What everyone seems to agree on is the decline in generalized trust (Costa and Kahn, 2003, Wuthnow, 2002, Putnam, 2000, Paxton, 1999). Time-use surveys show a decline in certain "social capital activities" (associational activity and home-based socializing with friends, relatives or neighbors) from 1965 to 1985 (Robinson and Godbey, 1997). The most comprehensive investigation by researchers other than Putnam is the work by Costa and Kahn (2003). They use a wide range of American survey data, including time use surveys, restricted to the age group 25-54. They find some support for a "decline hypothesis", with the biggest decline in the probability of entertaining at home and having family dinners with all family members present. There has been a moderate decline in organizational membership and activity. However, using the General Social Survey they find no decrease in the probability of spending frequent evenings with friends or relatives. Recent results supporting a decline hypothesis in the US have been reported by McPherson et al. (2006), who find a dramatic increase in social isolation from 1985 to 2004 (measured as the percentage of the population who talks to no one about matters that are important to them).

Outside the US, the support for a decline hypothesis has been more modest. A review of research from eight OECD-countries finds little evidence of declining social engagement outside the US and Australia (Côté and Healy, 2001: 48). Participation in civic organizations, as well as levels of volunteering, has been stable or rising in most countries. There is mixed evidence on informal sociability trends. In the United Kingdom, time use surveys showed no decline in levels of informal socializing from 1961 to 1984 (Hall, 1999: 426-427). However, recent UK surveys point to a decrease from 1986 to 1995 in face-to-face contact with relatives and "best friend" (McGlone et al., 1999: 147). The face-to-face contact with a non-resident mother or father declined from 1986 to 1995, and was fairly stable from 1995 to 2001 (Park and Roberts, 2002).

Turning to the Nordic countries, several studies give a rather positive impression of trends in associational activity and informal socializing. In Sweden, the evidence is based on two large-scale, nationally representative survey programmes: The Level-of-Living Survey (LNU) and The Living Conditions Survey (ULF). The "social networks" component of the LNU survey have been analyzed by several authors (Fritzell and Lundberg, 1994, Nermo and Stern, 2001). Although there was a slight decline in the 1990s, the proportion of the population who relatively often entertained/visited friends and relatives increased from 45 percent in 1968 to 61 percent in 2000 (Nermo and Stern, 2001). The level of social support remained largely the same from 1981 to 2000. Analyses based on the ULF survey have shown that from 1976 to 1995 there was a strong increase in frequency of socializing with friends and a smaller increase in the frequency of socializing with relatives. More people reported having a close friend (Davidsson 1997). However, there was also a substantial decrease in frequent socializing with neighbors and a small decline in face-to-face contacts with work colleagues outside work (among those who had work colleagues). The most recent exposition of Swedish trends based on the ULF survey, and covering the period from 1980 to 2004, presents a similar picture. An exception is that the trend concerning frequent interactions with close relatives has shifted from a small increase to a small decrease (Häll, 2006). Although measured in different ways, both these large-scale surveys show a decline in social isolation (Fritzell and Lundberg, 1994, for the period 1968-1991, Häll, 2006, for the period 1982-2004). However, there are signs indicating that trends have been somewhat less favorable in recent years. Particularly, there have been reports of a decline in associational activity during the 1990s, especially among the young (Vogel et al., 2003).

In Denmark, the Danish Institute for Social Research (SFI) has conducted nationally representative surveys on culture and leisure activities since the 1960s, and also three surveys on living conditions (1976, 1986 and 2000). On the basis of the leisure activity surveys, Fridberg (2000) demonstrates how entertaining at home/visiting has been on a nearly constant level in Denmark from 1964 to 1998. The level of associational activity also showed an upward trend from 1964 to 1987 and remained fairly stable in the 1990s (Fridberg, 2000, see also Thorpe, 2003). According to the surveys on living conditions, a larger percentage of the population had friends to talk to about personal problems in

2000 than in 1976. A summary measure of "bad" living conditions in the area of social integration ("no close contacts or influence", taking into account both friendship relations, membership in associations and unemployment), shows a clear downward trend, regardless of socioeconomic position (Andersen, 2003).

What is the evidence concerning more subjective indicators? Few countries have gathered repeated survey data on expressed feelings of belonging or loneliness. Germany is an interesting exception. From 1978 to 1998 the percentage of the population in West Germany reporting frequent feelings of loneliness was virtually unchanged, and declined slightly in East Germany in the 1990s (Bulmahn, 2000: 389). British data on loneliness among the elderly does not indicate any increase in severe loneliness during the postwar period (Victor et al. 2005). In Denmark, the percentage who said they were often "alone without wanting to" remained stable between 1976 and 2000 (Andersen 2003). Both in Denmark and Sweden, levels of social trust have increased (Rothstein, 2001, Thorpe, 2003). However, levels of interpersonal trust have declined in some other countries besides the US, notably the UK (Hall, 1999) and Australia (Coté and Healy, 2001).

Data and methods

The main data source in this article is the Norwegian Level of Living Surveys, for the years 1973, 1980, 1983, 1987, 1991, 1995, 1997, 1998, 2001, 2002, 2004 and 2005. These are nationally representative, large-scale surveys carried out by Statistics Norway, covering different aspects of living conditions in the adult population. The net sample size has varied from slightly below 3000 (1973) to more than 6000 (2005). The non-response rate has increased moderately, from 23 percent in 1973 to 30 percent in 2005. Of course, only the surveys that contain identical or nearly identical questions are used for comparison. This means, to take one example, that the surveys from 1973, 1998, 2002 and 2005 are excluded when trends in associational activity are examined. These surveys lack the information needed, either because questions on associational activity have not been posed or because the questions are not comparable with other surveys.

The main variables from these surveys, used in the next tables and figures, are defined as follows:

Family. *Living alone* refers to respondents in one-person households. The variable *Sees family at least weekly* is based on questions concerning living arrangements and frequency of face-to-face meetings with three types of family members: Parents, siblings (irrespective of age) and children 16 years and older. Respondents living with at least one of their close family members are by definition seeing a family member at least weekly⁴.

Friendship. *Has good friend locally* comprises respondents who answered affirmatively to the following question: "Apart from members of your own family, do you have any good friends on the place where you live?" Those who have good friends are asked how often they "spend time" with these friends. *Sees friends at least weekly* includes both good friends in the area of residence and good friends living elsewhere. The 1987 and 1991 surveys are excluded, since questions on contact with friends living outside the area of residence were not included⁵. *Has confiding friend* comprises respondents who answered "yes" to the following question: "Apart from members of your own family, do you have anyone close to you who you can talk to in confidence?".

Work and education. *Not employed/in school* comprises respondents who usually do not work for pay or profit, for at least one hour per week, and do not attend any form of school/education. The 1973 survey is excluded for the variable *Employed full time/in school*, since respondents temporarily absent from work were not asked how many hours per week they usually work. Full time work is defined as working 35 hours a week or more (in main and secondary occupations combined). Questions on educational activity are not entirely comparable across surveys. In 1973 the educationally active were those who worked less than 21 hours last week, and reported "went to school, studied" as their most important business. In 1980 and 1983 the question was: "Do you presently attend any school or have you started an education?". The duration was specified to

"normally" at least 5 months. From 1987 the educationally active comprise those who go to school or studies, normally at least 10 hours a week.

Associational activity. Questions concerning membership and activity in 12 types of associations are fairly comparable from 1980 to 2004. Trade unions and political parties are included. *Active in associations* are respondents that are members of associations and report a "moderate activity" level in at least one association. *Very active in associations* are respondents that have a "high activity" level in at least one association or a "moderate activity" level in two or more associations⁶.

Neighbors. Information on contact with neighbors is based on the following question: "How many families/households in your neighboring area do you know so well that you visit one another occasionally?"

Independent variables. The independent variables will be year of survey, gender and age, and finally educational level for the age group 30-49. The educational levels are: Primary (primary or lower secondary education), secondary (upper secondary education) and finally college/university⁷. The age group 30-49 is selected for two reasons: Firstly, the age group should be relatively narrow to avoid the influence of changes in age structure when comparisons are made between surveys. Secondly, by the age of 30 most people have finished their education.

In the following, only simple tables and figures will be presented. In addition, all indicators have been analyzed by means of logistic regression. Trends are tested for linearity, and controlled for gender and age structure. Interaction effects between year of survey, gender and age are also tested. These tests are not shown, but referred to in the text.

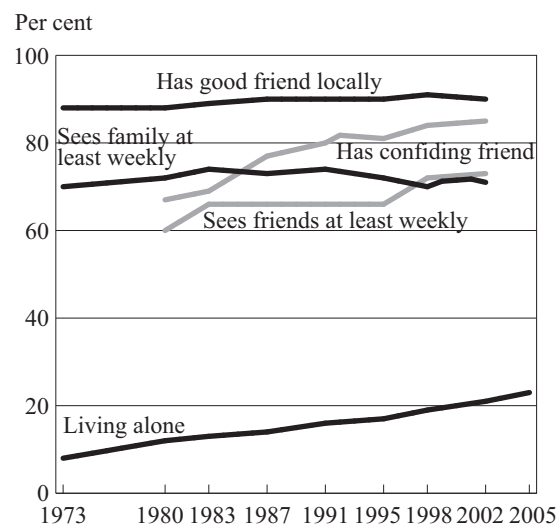
Results

The picture in general

Figure 1 and 2 give an overview of trends in different types of social integration in Norway from 1973 to 2005. Only one variable, living alone, is clearly consistent with the "decline of community/social capital"-hypothesis. The percentage of the adult population who lives alone has nearly tripled during the last thirty years. There has also been a decline of high activity levels in associations since 1997.

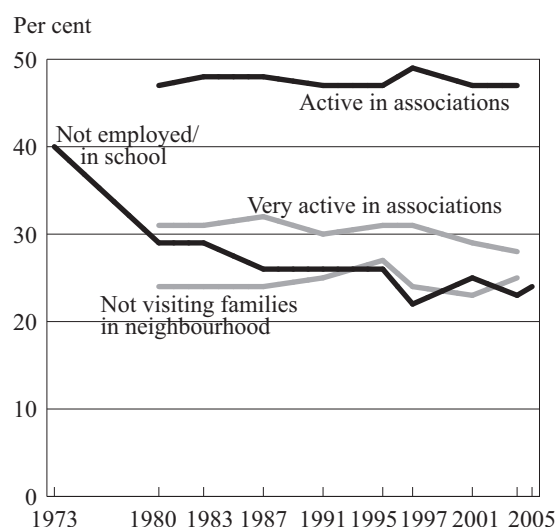
The other indicators do not support the hypothesis. The percentage of the population who is at least moderately active members of associations has remained constant. The frequency of face-to-face interaction with close family members has also shown considerable stability⁸, the same goes for the practice of visiting at least one family in the neighborhood. Face-to-face interaction with friends has increased, and a larger proportion of the population participates in work/school arenas. The most obvious change in a "community enhancing" direction is the upward trend in friendship relations. The increase in confiding friendships is particularly striking.

Figure 1. "Strong tie" social integration (family and friendship). 1973-2005. Age group 17-79 (1973-2005)/16-79 (1980-2005). Percent.



Source: Level of Living Surveys, Statistics Norway

Figure 2. "Weak tie" social integration (work/education, organizations and neighbors). 1973-2005. Age group 17-79 (1973-2005)/16-79 (1980-2005). Percent



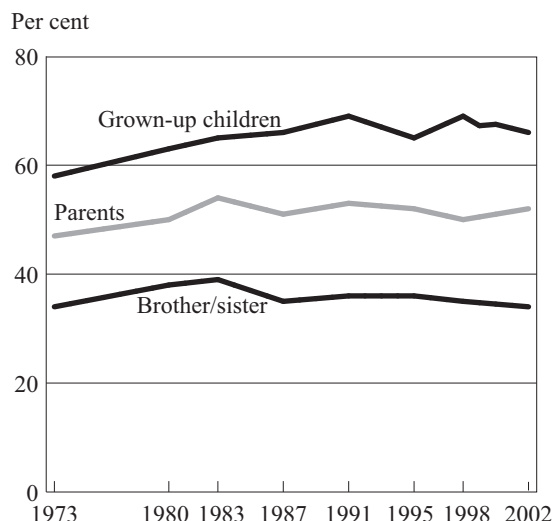
Source: Level of Living Surveys, Statistics Norway

These trends are generally confirmed in a series of logistic regression analyses (results not shown). For instance, all three variables measuring friendship have a statistically significant, positive relation with year of survey, independent of age and gender. The only exception is "active in associations", where the apparent stability shifts to a slightly negative trend when controls for age and gender are brought in.

A closer inspection of trends in family interaction shows a moderate increase in face-to-face contact between parents and adult (16+) children who have moved away from home (the difference between 1973 and 2002 is statistically significant in logistic regression analyses, controlling for age and gender). On the other hand, the frequency of sibling contact was reduced from 1983 to 2002, bringing it down to the same level as in 1973 (figure 3). The positive trends of family interaction took place in

the 1970s and 1980s. Little has changed since 1991, for sibling contact there has even been a significant downward trend.

Figure 3. Persons 17-79 years with close relatives outside the household, who meet these relatives at least weekly. 1973-2002. Percent.



Source: Level of Living Surveys, Statistics Norway

Different trends for men and women

Table 1 and table 2 show developments for men and women in different age groups, for selected indicators. The significance of trends is tested by means of logistic regression coefficients (OR, odds ratios, showing how much social integration increases/decreases per year). Most dependent variables have predominantly linear relations with year of survey, although this varies somewhat by age group and gender. There are two exceptions; firstly family contact, where trends were generally positive up to 1991 and negative since. This is reflected in table 1 and handled by splitting the year variable in two: Before and after 1991. The second exception is “weak ties” isolation, shown in table 2, where trends also differ considerably before and after 1991. Consequently, a similar splitting of time trends is performed.

Trends of social integration have evidently been more positive for women than for men. Norwegian women have above all increased their participation in the institutions of education and paid work, but also see good friends more frequently and have slightly more contact with close relatives. In contrast to men, there has been no decrease in associational activity. Two measures of social isolation are provided. “Strong tie” isolation is defined as the percentage that neither sees friends nor close family at least weekly. This measure shows a small, but significant, downward trend for women, while there has been no change for men (table 1). “Weak tie” isolation is defined as the percentage that neither is employed or in some form of education, nor is active in associations. This measure indicates a substantial decline in the social isolation of women, and again little change for men. The gender difference in trends was very strong in the 1980s, but after 1991 changes in “weak tie” isolation have been similar (table 2).

Table 1. "Strong tie" social integration (family and friendship) by sex and age. 1973-2005. Percent and odds ratios (OR).

	Men ¹	16-24 ²	25-44	45-66	67-79	Women ¹	16-24 ²	25-44	45-66	67-79
Sees family at least weekly										
1973	71	75	65	75	65	69	80	61	73	63
1980	75	89	68	77	73	70	79	61	76	69
1983	75	90	70	76	68	72	80	67	76	71
1987	74	85	67	78	68	73	81	64	80	73
1991	75	88	67	78	73	73	80	66	80	74
1995	72	83	66	72	75	72	76	64	79	74
1998	68	78	64	71	69	71	75	65	75	72
2002	69	84	61	71	74	72	77	66	75	78
OR 73-91 91-02 N	1.01 0.97*** 15230	1.02* 0.96** 2655	1.00 0.97*** 5995	1.00 0.97*** 5137	1.01 1.01 1722	1.01*** 0.99* 15629	1.00 0.98 2651	1.01 1.00 6161	1.02*** 0.97** 5070	1.02** 1.02 2062
Sees friends at least weekly										
1980	59	91	60	44	48	61	87	63	46	56
1983	66	95	67	51	53	66	90	66	53	61
1995	67	94	71	49	55	66	90	69	57	51
1998	72	98	77	59	54	72	95	80	57	60
2002	74	95	82	61	61	73	94	78	62	65
OR N	1.03*** 10530	1.03* 1712	1.05*** 4129	1.03*** 3546	1.02** 1143	1.03*** 10715	1.04*** 1676	1.04*** 4170	1.03*** 3492	1.01 1377
Do not see family and friends weekly										
1980	10	1	14	9	13	9	3	11	10	11
1983	9	1	9	10	15	8	3	10	8	10
1995	9	2	10	11	10	8	3	11	7	11
1998	9	0	9	11	16	8	2	7	10	11
2002	9	1	9	11	10	7	2	7	8	7
OR N	1.00 10500	1.02 1714	0.99* 4111	1.01 3537	0.99 1138	0.99** 10691	0.98 1679	0.98** 4161	1.00 3484	0.98 1367

¹Logistic regression coefficient (OR) controlled for age

²17-24 when the time series starts in 1973, 16-24 when the time series starts in 1980

*significant at 0.05 level, **significant at 0.01 level, ***significant at 0.001 level

Table 2. "Weak tie" social integration by sex and age. 1980-2005. Percent and odds ratios (OR).

	Men ¹	16-24	25-44	45-66	67-79	Wom- en ¹	16-24	25-44	45-66	67-79
Employed full time/in school										
1980	80	91	95	82	7	34	72	33	26	2
1983	78	86	95	78	7	35	73	35	27	0
1987	78	86	95	77	6	41	85	46	26	1
1991	76	83	90	79	6	45	79	50	34	1
1995	74	84	90	74	3	46	80	54	39	0
1998	75	87	90	76	4	52	86	61	46	2
2002	74	85	90	73	3	50	84	61	45	1
2005	72	86	89	70	5	50	80	60	44	1
OR	0.97***	0.99	0.97***	0.98***	0.97*	1.05***	1.02**	1.05***	1.04***	1.01
N	17117	2855	6662	5718	1882	17394	2757	6796	5638	2203
Active in associations										
1980	52	55	61	47	33	43	41	44	42	42
1983	50	48	60	49	20	47	43	53	44	40
1987	50	54	56	47	35	47	43	52	45	39
1991	50	45	56	51	32	45	45	46	45	43
1995	50	51	53	50	41	44	44	45	41	43
1997	48	45	52	50	35	50	49	55	47	44
2001	48	43	50	49	45	45	36	49	47	42
2004	46	41	48	47	44	47	40	50	48	44
OR	0.99***	0.98***	0.98**	1.00	1.03***	1.00	1.00	1.00	1.01*	1.00
N	14119	2473	5552	4501	1593	14368	2404	5697	4435	1832
Not active associations and not employed/in school										
1980	11	3	1	11	59	25	14	19	27	54
1983	14	6	2	12	69	25	15	16	27	57
1987	12	6	2	13	58	19	6	9	22	58
1991	13	10	5	10	59	19	11	9	23	56
1995	13	7	4	15	54	20	8	11	22	55
1997	12	5	3	10	61	16	5	7	19	52
2001	12	4	4	13	46	19	10	8	19	57
2004	12	7	4	13	48	16	7	8	17	52
OR	1.02*	1.08**	1.09**	1.00	0.99	0.96***	0.94**	0.92***	0.98*	1.00
1980-91	0.99	0.96	1.00	1.01	0.96**	0.99	0.99	0.99	0.98*	0.99
1991-05	13659	2379	5389	4354	1537	13979	2329	5557	4312	1781

¹Logistic regression coefficient (OR) controlled for age

*significant at 0.05 level, **significant at 0.01 level, ***significant at 0.001 level

All gender differences in trends have been tested by the use of interaction variables in logistic regression analysis (results not shown). Analyzing the six selected indicators of tables 1 and 2, there are significant interaction effects between year of survey and gender in four cases. Concerning family contact, the interaction effects are significant in both time periods, but stronger after than before 1991 (cf. table 1 and the more pronounced decrease in male family contact after 1991). For "weak ties" isolation, there is a strong gender difference in trends before 1991. However, this difference is much smaller and statistically non-significant in the following years. For trends in "strong tie" isolation, the gender difference is marginally not significant at the 5 percent level ($p=0.064$). The main exception from the general rule is the development of friendship relations, which has been equally positive for men and women⁹.

The trends of social integration seem to have been particularly positive for women in the age group 25-44. This is the only group with a significant decline in both "strong ties" and "weak ties" isolation. These young women have also experienced the strongest increase in full time employment/educational participation. The decline in "weak ties" isolation up to 1991 is significantly larger for women 25-44

compared to older women. The difference in trends of “strong ties” isolation (comparing age groups 25-44 and 45-66) is marginally non-significant at the 5 percent level.

In general there are no significant differences between the youngest women (16-24) and women aged 25-44. There is one exception; the increase in full time employment/school participation has been weaker for the youngest women.

Elderly women, aged 67-79, are the only group among women that has not experienced a decline in “weak tie” isolation. On the other hand, elderly women had considerably more contact with their family in 2002 than 30 years earlier; in contrast to most other groups there was no decline in the 1990s (the difference in trend compared to women 45-66 is statistically significant). This is a notable development, since elderly women is a group with considerable health problems and a large proportion living alone. The increased family interaction may be of special importance for the overall welfare of this group¹⁰.

For men, the picture is less clear-cut. The increase in friendship contact has been particularly pronounced for men aged 25-44 (significantly different from trends for men in older age groups), this is also the only male age group where there has been a decrease of “strong ties” isolation (in significant contrast to men aged 45-66). On the other hand there was a clear increase in “weak ties” isolation for younger men (16-44) up to 1991, and a more long-term decline of associational activity for the same age groups (both trends differ significantly from trends for older men).

Increasing differences by education?

How do trends of social isolation and integration differ by educational level? I have concentrated on a relatively young age group, 30-49. To increase the number of observations, surveys are pooled¹¹. Having a university/college degree does not seem to be of increasing importance for avoiding “strong tie” isolation in this age group (results not shown). In contrast, the “weak tie” isolation measure indicates growing educational differences. The percentage that does not participate in work, education and associational settings has increased significantly for men with primary and secondary education, while there has been no increase for men with college/university education. For women the only significant result is a decline in isolation among women with secondary education. However, trend differences for men are not statistically significant, while the downward trend for women with medium education differs significantly from the slight upward trend for women with primary education only (results not shown).

Behind these results are increasing educational differences concerning associational activity among men. For men with primary education only, the percentage actively involved in associations was nearly halved from 1980-87 to 1997-2004 (from 55 to 31 percent). There was a decline for other educational levels as well, but not nearly of the same magnitude (confirmed by significant interaction effects in logistic regression analyses). A similar interaction could not be found for women. Not surprising, there are also signs indicating that a college/university degree has become a more important resource on the labor market. The decrease in full-time work among men has been strongest for men with primary or secondary education (only the difference between men with secondary education and college/university education is statistically significant).

Other evidence: Time use surveys

Norwegian time use surveys from 1971 to 2000 confirm the general picture given by the Level of Living Surveys (table 3¹²). There was no overall decline in time used for informal socializing from 1971 to 2000, with young men (16-24) being the only clear exception. However, while time used for social purposes (such as visiting/being visited by friends and family) increased from 1971 to 1990, there was a notable decrease in the 1990s. With the exception of older women, this decrease was evident for all groups, particularly for young men. The population spent 1 hour and 4 minutes more alone on an average day in 2000 than in 1990 (Vaage, 2002).

Some types of social activities have increased consistently during the last twenty years and did not decline in the 1990s. They include parties, visits to restaurants or cafés, and above all conversations (including telephone conversations). Time used on conversations increased by 22 percent from 1980 to 2000. Time used on volunteering/organizational work was virtually unchanged from 1980 to 2000. However, the oldest age group (67-74) increased their volunteering/organizational work, and generally seems to have become more active and outgoing. 78 percent of the elderly traveled on an average day in 2000, compared to 57 percent in 1980 (Vaage, 2002).

Table 3. Social interaction during leisure time on an average day. Time use (hours, minutes) and OLS coefficients (all statistically significant at 0.001 level). Main activity. Persons aged 16-74. 1971-2000.

Year	All		Men				Women			
	Men ¹	Women ¹	16-24	25-44	45-66	67-74	16-24	25-44	45-66	67-74
Time use										
1971	1.31	1.54	1.55	1.39	1.16	1.16	2.10	1.57	1.46	1.48
1980	1.49	2.08	2.22	1.48	1.31	1.39	2.31	2.06	2.00	1.54
1990	1.49	2.09	2.04	1.51	1.39	1.44	2.29	2.07	2.01	2.05
2000	1.32	1.57	1.38	1.34	1.28	1.32	2.11	1.57	1.49	2.07
Coeff.										
1971-90	0.9	0.7	0.5	0.6	1.2	1.5	0.6	0.5	0.8	0.9
1990-00	-1.8	-1.3	-3.4	-1.8	-1.2	-1.5	-1.8	-1.1	-1.5	0.3
Number of observations (from/to)	2874-3349	2842-3636	419-639	1173-1290	894-1323	200-267	362-678	1231-1450	853-1405	186-302

¹Linear regression coefficients controlled for age

Source: Time use surveys, Statistics Norway (Vaage 2002)

Interestingly, also the evidence from time use surveys indicates a decline or stability in social isolation, depending on time period. The percentage of the population that did not socialize at all during an average day decreased significantly from 1971 to 2000, from 30 to 18 percent. Comparing 1990 and 2000, there was little change, in contrast to the decline of average time use (Vaage, 2002). However, these figures include telephone conversation, and are in this respect not comparable with the Level of Living Surveys.

Discussion

Conclusions in general

The pessimistic descriptions given by Galtung, Putnam and others, receive limited support. During the last 30 years, there is no general decline in social integration. The case is rather the opposite concerning friendship interaction and the proportion of people who has a confiding relationship outside of family circles. More people socialize on an average day. These findings are in accordance with other research claiming that increasing individualization is not necessarily detrimental to communal relations and quality of life in general (Veenhoven, 1999). The fact that confiding friendships have become more widespread is consistent with Hage and Power's prediction that post-industrial society will be conducive to more intimate social relations. This finding is also in contradiction to Lane's hypothesis that a continued frequency of contact among friends masks a decline of warmth (Lane, 2000: 113). Intimacy, i.e. a close and confiding relationship, is a crucial element (although not the only one) in the experience of warmth and support. Friendship as a social relation is in many ways prototypical for relations in late modern society. Friendships are typically *chosen* (you do not choose most of your relatives), *informal* (there are no explicit, formal rules governing friendships, in contrast to family relations) and *egalitarian*. While American and British surveys do not always confirm that interaction frequencies with friends are rising, they indicate that friendship has become a more important source of social support (Veroff et al., 1981: 485, McGlone et al., 1999: 149-150).

Putnam (2002) acknowledges that in many nations there seems to have been an increase in informal, personal forms of social connection, and that this does not support the thesis that citizens everywhere are increasingly "bowling alone". However, he claims that the statistical evidence for the growth in informal social connectedness is less firm than for formal connectedness, "...in the one case for which we have the most abundant time series evidence on informal social capital – the US – the evidence does *not* appear to support the hypothesized growth" (Putnam, 2002: 412, italics supplied in original). As I have tried to show, there is also "abundant" evidence of informal socializing in the Nordic context. In Norway, Sweden and Denmark taken together, there are at least six large-scale, nationally representative survey programmes with data going back to the 1960s or 1970s. They consistently show a growth in informal friendship connections¹³, and that isolation from family and friendship networks is either decreasing or stable. Unfortunately, results from several of these surveys have not been available for an English-speaking audience.

Qualifications

A number of important qualifications must be made, however. There has been some decline in the number of people who are very active in associations. Household integration is obviously loosening, as more and more people are single and live alone. This has partly been a consequence of the increasing number of divorces. More young people have also preferred cohabiting to marriage, a change that contributes to the instability of household relations. Still, there is no overall increase in social isolation, as friendship and some forms of family relations beyond the household are strengthened.

Another qualification is developments in the 1990s, which contrasts with trends in the preceding decades. In particular, people spend more time alone and less time visiting friends and relatives. There have been similar trends in other Nordic countries (Niemi and Pääkkönen 2002, Rydenstam, 2003). Both in Finland, Sweden and Norway, there has been a decline in the proportion of leisure time used for informal socializing during the 1990s.

A third qualification is the difference between subgroups. The social integration of women has become sizeably stronger during the last 30 years, particularly in relation to paid work. Integration into the workforce has probably had positive repercussions for women's networks and sense of belonging. More often than men, women state that social aspects of work are important reasons for working (Veroff et al. 1981: 328). In addition, declining household integration may be particularly detrimental for men, since men seem to depend more heavily on the institution of marriage/cohabitation for support and belonging (Veroff et al., 1981, Barstad, 2000). Concerning younger men, there is a substantial decline in associational activity. A downward trend in associational activity among the young is also found in Denmark (Thorpe, 2003) and Sweden (Vogel et al., 2003).

Education is an important dimension of inequality. The decline in associational activity among younger men has been particularly pronounced for men with primary education only. At the same time, however, the percentage of the population with primary education is much smaller than before, especially in younger age groups. It is difficult to compare the effect of low education over long time periods since the composition of the group in all probability has changed considerably. The fact that education has become somewhat more important for organizational activity in Norway is confirmed by other research (Wollebæk et al., 2000: 112-124).

Problems of measurement and interpretation

Admittedly, the indicators of social integration are crude and simple. There is a lack of information on both the quantity and quality of interaction, especially concerning "weak ties". There are limitations related to the use of large-scale social surveys as instruments for measuring and understanding complex psychosocial phenomena. Has friendship relations really become more confiding, or has a more "friendship conscious" culture changed the way people describe their friendships?

Unfortunately, with few exceptions comparable subjective indicators on integration are not available for longer time periods. Rising interaction frequencies are not necessarily reflected in a stronger sense of belonging, or less frequent feelings of loneliness. However, as I have shown, the few existing studies comparing data on loneliness in different time periods have not confirmed the often held belief that more and more people are experiencing loneliness.

Explaining differences

Assuming that the differences between the US and Norway is real, and not due to differences in choice of methods and indicators, what could account for them? I will limit myself to one crucial point, addressing the intriguing differences in trends for women. Costa and Kahn (2003: 40) found that the decline of social capital was stronger for women than men on nearly all accounts, and argue that "...women's growing commitment to careers may...play a role in declines in social capital". There has been a particularly steep increase in time devoted to paid work and child care among American women, an increase that a recent comparative study suggested as the principal explanation for the decline in associational activity (Andersen et al., 2006). A notable difference between women in the US and countries like the UK and Norway, is that relatively few women in the American labor force work part-time (United Nations, 2006). According to Putnam (2000: 200) part-time work is "the golden mean", the ideal solution from a social capital perspective. There is reason to believe that different welfare state policies influence the attractiveness of part-time work (Stier et al., 2001).

Irrespective of causes, the results are consistent with recent research showing that a generous welfare state does not necessarily "crowd out" social support and communal relations. Comparative research on the relationship between social integration/social capital and welfare state regimes is still very limited. In general, the Nordic welfare states seem to be no worse off than other welfare states in terms of informal socializing, associational activity and generalized trust (Oorschoot and Arts 2005, Kääriäinen and Lehtonen, 2006). Interventions by the welfare state can give more time available for social contact and civic engagement, supply associations with financial resources and send out messages about impartiality, inclusion and universal citizenship. In countries with a strong and universal welfare state there is also less poverty and economic inequality (Vogel, 1997, Brady, 2005), factors that seem to inhibit generalized trust (Uslaner, 2002, Costa and Kahn, 2003, Oorschoot and Arts, 2005) and at least some forms of social participation (Putnam, 2000, Costa and Kahn, 2003, Oorschoot and Arts, 2005).

Notes

¹ Putnam also uses the concepts of social support and social integration, without distinguishing them from the concept of social capital (Putnam, 2000: 326-327)

² Social capital, especially in its quintessential subjective form: trust, could be seen as a prerequisite for integration, but also as a consequence of integration; trust is created and maintained in close relations and in other forms of social interaction

³ Family, friends and coworkers are the three most commonly cited sources of "a real sense of belonging or a sense of community" (Putnam, 2000: 275). Voluntary organizations also contribute to a sense of community. Social contact is an important motive for activity in such organizations (Wollebæk et al., 2000: 127, 137).

⁴ There is one exception, concerning adult children. Only those who live with all of their adult children (16+) are included in the category "sees close family members at least weekly". This exception is dictated by the need to ensure maximum comparability with the 1973 survey. The available file from this survey has limited information on household composition. This is probably of little consequence for conclusions drawn, since a summary measure using the fuller information in surveys from 1980 and onwards largely gives the same picture of trends in family contact, i.e. an increase up to 1991, followed by a decline.

⁵ One difference between surveys concerning these questions should be noted. Up to 1995, there was a separate question on interaction frequency for each of the two categories of good friends: Friends in the area of residence and friends living elsewhere. Respondents who answered, for at least one of the two categories, that they spent time with good friends daily or weekly, are included in "sees good friends at least weekly". In 1998 and 2002, there is only one question on interaction frequency, covering good friends regardless of where they live. This change may be responsible for at least some of the increase in interaction frequency from 1995 to 1998. To take one example, a respondent who sees a friend in the area of residence approximately monthly and also sees a friend living elsewhere monthly, could, when making a summary judgment of interaction frequency, say that he/she sees friends weekly

⁶ Some changes in the wording of questions have taken place over the years. The most significant of these are the following: Concerning the question on neighborhood associations, only one form of neighborhood association was mentioned in

- 1980; in the 1983 survey two additional forms were added. Another change concerns the question on trade unions. Before 2001, only trade unions were mentioned, in 2001 "employee's organization" was added to the question. However, the trends of activity in these associations seem to be independent of changes in question wordings (i.e. an increase for neighborhood associations and stability for trade unions).
- ⁷There are some problems with comparing the level of education over time. In 1973 and 1980 the respondents were asked about their educational level in the interview, from 1983 the data on educational level are collected from registers. Efforts have been made to make the 1973 and 1980 data on educational level as comparable as possible with the register data from later surveys. A problem that is difficult to correct is that people seem to overestimate their formal education in interviews. The educational data are coded according to the Norwegian Standard Classification of Education
- ⁸Conclusions regarding family interaction vary with how family interaction is defined. Infrequent family interaction (seeing close family less frequently than monthly) was significantly less common in 2002 than in 1973, also controlling for age and gender.
- ⁹An exception is having a confidant outside family circles, where the increase has been significantly stronger for women than for men
- ¹⁰If "strong tie" isolation is defined as living alone and not seeing friends or family at least weekly, fewer old women experienced this extreme form of isolation in 2002 than in 1980. In this case the linear trend is statistically significant, but the difference in trends compared to women 45-66 is marginally non-significant at the 5 percent level
- ¹¹In the case of "strong tie" isolation, the surveys from the 1980s are pooled (1980, 1983 and 1987) and the surveys of 1998 and 2002. In the case of "weak tie" isolation, there is a pooling of surveys from each decade, the 1980s (1980, 1983 and 1987), the 1990s (1991, 1995) and the years after 2000 (2001, 2002, 2004 and 2005)
- ¹²Data on time use in table 3 are taken from Vaage (2002). The OLS regression analysis is performed using frequency weights and the reg procedure in STATA. The frequency weights are the number of respondents in each group. The number of respondents is found by dividing the number of observations (diary days) by two, since each respondent (with a few exceptions) filled out a diary for two consecutive days. In the Time Use Survey 2000, a sample of persons in the age group 60-66 was added to the main sample. An additional sample was also drawn to rectify the high non-response rate during the first months of the data collection. The frequency weights for 2000 are not adjusted for these additional samples.
- ¹³The Norwegian Time Use Survey does not show a growth in friendship connections comparing 1980 with 2000, but only covers main activities and home visits by/at friends, and is therefore not directly comparable with the other surveys. It is conceivable that friends meet less at home, and more in public. Visits to restaurants and cafés have increased.

Acknowledgements: I thank Arne Mastekaasa and Lise Kjølørød for very valuable comments to earlier versions of this article.

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PAPER IV

Paper IV

Leaving a marriage or a cohabiting relationship: What are the emotional costs?

Anders Barstad

Partnership dissolutions have become increasingly common. One of the reasons is the spread of cohabitation; a more unstable form of partnership than marriage. Using Norwegian panel data, I show that partnership dissolutions have emotional costs and increase distress, but mainly in the short term. There is, however, some support for a permanent strain effect among men. Additionally, consequences differ for families with and without children. Divorced persons without children are better off after divorce than before, while those formerly married in households with children are somewhat worse off. No significant differences are found when comparing the consequences of dissolving a marriage and a consensual union. However, there is considerable variation within the group of cohabitants. Cohabitants without a marriage-like relationship do not experience any rise in symptoms of mental distress following dissolution. On the other hand, persons in marriage-like cohabitations (long duration, with children) react much more negatively to the dissolution, and even more strongly than a similar group of married persons. The finding that persons in marriage-like cohabitations experience higher emotional costs is discussed in light of cohabitation viewed as an “incomplete institution”. The more ambiguous and anomic character of cohabitations can be a drawback in the dissolution of long-term partnerships and partnerships with children.

To be submitted to *Journal of Marriage and Family*.

1. Introduction

Partnership dissolutions, other than by death, have become increasingly common in modern societies. In Norway, close to half of all marriages initiated in recent years are expected to be dissolved through divorce. In 1970, only 13 per cent of marriages were expected to end in a divorce (Statistics Norway, 2007a). Additionally, cohabitation has become a more widespread form of partnership. In 2002-2004, 26 per cent of Norwegian partnerships were cohabitations, an increase from 19 per cent 10 years before (Statistics Norway, 2007b). While little is known of trends in dissolution rates, cohabitation is clearly a less stable form of partnership than marriage. In Norway this has been documented in several studies (Texmon, 1999, Byberg et al., 2001).

What are the consequences of the high dissolution rates for mental health? A fact of concern is that divorced and separated individuals, compared to those married, exhibit lower levels of psychological well-being, as evidenced in countless studies (reviewed by Amato, 2000, Mirowsky and Ross, 2003). However, correlation is not causation, and the dissolution of cohabitations does not necessarily have the same consequences as the dissolution of marriages. In this article I attempt to gauge the emotional costs of dissolving partnerships. Two contributions are made to the research literature: First, while most studies in this area have used cross-sectional or rather limited longitudinal data (few time points, short periods), I base my analysis on nationally representative, longitudinal surveys where data have been collected annually over a period of six years. Such data are needed to provide a more definite answer to the age long question of causality, and to the question of whether causal effects (if found) are short term or long term. Secondly, while most other studies focus exclusively on separations and divorce (Amato, 2000), I include the dissolution of cohabitations. In doing so I hope to contribute to filling one of the gaps in our knowledge of how recent trends in family integration affect mental health.

2. Causation or selection?

Does divorce cause distress (social causation hypothesis) or is it rather the other way around (social selection hypothesis)? As pointed out by Mastekaasa (1995), there are in reality two competing versions of both the social causation and selection hypothesis. In the case of social causation, there is first of all the *permanent strain* model, which assumes that being divorced is associated with a number of enduring strains, like economic problems, loss of social support and lowered self-esteem. Secondly, there is the *crisis* model, which assumes that the heightened distress of divorce is only short term, and that the distress level returns to a pre-divorce level after a few years. Accordingly, there is nothing inherently stressful in the role of being divorced. The social selection hypothesis differs by type of selection: permanent or temporary. *Permanent* selection implies that some personality characteristic (extraversion, stimulus-seeking etc.) cause both divorce and distress, while according to the *temporary* selection argument distress causes divorce. Of course, these perspectives may supplement rather than contradict each other. Marital dissatisfaction predicts increases in depressive symptoms over time (Proulx et al., 2007), which again could increase the chances of experiencing marital conflicts. Simon (2002), while mostly presenting evidence in favor of social causation, also finds that depression and alcohol abuse increase the likelihood of marital loss. Together, causation and (temporary) selection may work to create a vicious cycle, ultimately ending in divorce (cf. Wade and Pevalin, 2004, who suggests a "mutually reinforcing pattern" between family change and changes in distress).

Selection processes can also affect the probability of remarriage or of entering into other forms of romantic relationships after divorce. Divorcees with relatively high psychological well-being might be differentially selected into a second marriage, which, all things being equal, should lead to a decline over time in the average level of psychological well-being among the divorced (Mastekaasa, 1994).

In general, research using longitudinal data does not support a selection process as the main explanation for the higher distress of separated and divorced persons (Mastekaasa, 1995, Power et al., 1999, Amato, 2000, Johnson and Wu, 2002, Simon, 2002). However, several studies find evidence of both social selection and causation processes. Both a comparatively low level of happiness (Lucas,

2005) and chronic mental health problems (Wade and Pevalin, 2004) seem to select people out of marriage.

Findings on the two versions of the social causation hypothesis are mixed. Some mainly support the chronic strain model (see Mastekaasa, 1994, 1995, and the review by Amato, 2000). According to Johnson and Wu (2002), a crisis model only applies to persons experiencing the break-up of happy marriages. In this case there is a substantial negative effect at the time of disruption and a decline in distress afterwards. Persons leaving a troubled marriage tend to *reduce* their stress level at the time of divorce. Hetherington (2003) reviews the findings from the Virginia Longitudinal Study of Divorce and Remarriage, where families were followed for a period of up to 20 years. A main conclusion was that most people, after the initial high-stress reaction, adapted to their new life situation reasonably well within a period of 2-3 years if they were not confronted with continued or additional stresses. However, the diversity of reactions was striking. After 10 years, roughly 10 per cent of divorcees were still in the group of “defeated”, “...mired in despair, helplessness, poverty, and depression” (Hetherington, 2003, 325). On the other hand an even larger group, especially among women, was defined as “enhanced”, growing more competent and well adjusted over time.

Two recent articles based on the largest European panel data sets at hand: the British Household Panel Study (Gardner and Oswald, 2006) and the German Socio-Economic Panel Study (Andreß and Bröckel, 2007), mostly seem to support a crisis model. According to Gardner and Oswald, psychological strain increases during the two years before divorce, reaches a maximum in the year of divorce, and then falls over the ensuing years. Divorcees are better off at t+2 years than at t-2 years. Divorce is traumatic in the short term, but after two years, divorcees are better off than they were two years before the divorce. The German study uses information on the timing of the actual separation, not the formal divorce. This study also supports a crisis model. Life satisfaction decreases up to the year of separation, and then gradually returns to the satisfaction level three years before separation. Adaptation is not complete, however. After three years separated persons have not completely returned to their pre-separation level of satisfaction, which supports a chronic strain model.

Evidence indirectly in support of a crisis model comes from research showing that separated persons are unhappier (Stack and Ehsleman, 1998) and more distressed (Wade and Pevalin, 2004) and depressed (Hopcroft and Bradley, 2007) than divorcees. Recent divorces have more detrimental consequences for drinking behavior (Power et al., 1999) and for some aspects of social integration (Kalmijn and Groenou, 2005).

As far as I know, only two longitudinal studies (Gähler, 1998, for Sweden, Wu and Hart, 2002, for Canada) have compared the dissolving of marital and cohabiting unions. These studies, however, only have two waves, 10 and 2 years apart respectively, making it difficult to assess the relative strengths of a permanent strain and crisis model. The main finding is that the dissolution of these two kinds of partnerships has similar effects on psychological well-being and physical health. However, according to Wu and Hart, only the transition out of marriage increases depression.

3. Perspectives on causation

Why are partnership dissolutions detrimental to mental health? Three broad categories of answers can be distinguished. First, the dissolution represents a risk of “spoiled identity”, a loss of purpose, meaning and self-esteem. This perspective is rooted in the theoretical tradition of symbolic interactionism. The loss of a valued social role leads to a certain loss of identity, direction and guidance in life (Thoits, 1983). A partnership implies the creation of a shared culture and value system that is lost when the partnership is dissolved (Umberson and Williams, 1999). Diminished feelings of self-worth can be associated with shame. Following the theory of Thomas Scheff, shame is the feeling that arises when there is a threat to the social bond. If shame is repressed, it can lead to anger. A shame-anger cycle is potentially very disruptive of social bonds (Scheff, 2000, 2001). Divorcees are generally found to have lower self-esteem (Lau et al., 2002) and a weaker sense of purpose in life (Bierman et al., 2006) than persons married or cohabiting.

Second, there is the loss of companionship, social support and control. Research indicates that having a partner strongly reduces the risk of feeling lonely (Barstad, 2000). Divorcees, especially men, are more socially and emotionally lonely than married persons (Dykstra and Fokkema, 2007). Feelings of loneliness are a particular challenge during the first post-separation months (Clarke-Stewart and Brentano, 2006, 56). Divorcees are in general less socially integrated (Amato, 2000, Kalmijn and Groenou, 2005, Clarke-Stewart and Brentano, 2006) and have less access to social support (Gähler, 1998). There is a loss of contact with former in-laws and friends. The dissolution also means a weakening of social control, increasing the risk of lifestyle choices (e.g. using alcohol, taking drugs) that eventually lead to more distress. Several longitudinal studies have linked divorce to an increase in alcohol consumption (Chilcoat and Breslau, 1996, Power et al., 1999).

Third, there is a loss of economic resources. Adjusted household income is negatively affected by partnership dissolution, especially among mothers (Andreß et al., 2006). The experience of economic hardship seems to explain some of the difference in distress between marital status groups (Gähler, 1998, Lau et al., 2002). A large number of studies have shown a link between economic problems/dissatisfaction and distress (Stack and Ehsleman, 1998, Mirowsky and Ross, 2003, Nordenmark, 2004).

Why might we expect the dissolution of the two forms of partnerships to have different consequences for mental distress? First, there are reasons for expecting a "spoiled identity" to be stronger in the case of dissolving a marriage. Married couples report on average higher commitment and a better quality relationship than cohabiting couples (see Nock, 1995, Smock 2000 and the review by Lauer and Lauer, 2006, 136-137). In Norway and Sweden, young cohabitants are less satisfied and more often consider splitting up than their married counterparts. Differences are considerable. Especially cohabitants with no intentions to marry are less likely to be satisfied with their present union than married individuals (Bernhardt et al., 2007, age group 25-35). For an older age group (40-59) in Norway, Hansen et al. (2007) find that never-married cohabitants report somewhat lower relationship quality and life satisfaction than the first time married, while formerly married cohabitants are on the same level as the married. There are a number of symbolic aspects that signal a greater psychological investment in marriage, like the formal ritual of transition (most cohabitants have no special celebration marking the start of their cohabitation) and the change of surnames, which until recently was possible only among those who married (Noack and Wiik, 2005, Bernhardt et al., 2007). Stronger commitment equals greater loss.

Second, if cohabitants live more independent lives, the loss of social integration and control will be less than in a marriage. In economic matters, cohabiting couples are more likely than married couples to keep money separate (Heimdal and Houseknecht, 2003). If cohabitants are less committed to their relationship, sanctions from the partner will probably not have the same regulating power as in a marriage. Cohabitation has been described as an "incomplete institution", with less clear norms of conduct (Nock, 1995). Consistent with this line of thinking, some research shows a weaker effect of cohabitation than marriage on risky behavior. Both binge drinking and marijuana use fall markedly when men marry, but not when they cohabit (Duncan et al., 2006), and cohabitants report more problems with alcohol compared to married persons (Horwitz and White, 1998). It is unclear, however, how much findings like these are influenced by selection of "risk-prone" personalities into cohabitation.

Third, could economic consequences differ between the two forms of partnership dissolution? For women, the evidence points to somewhat more negative, short-term consequences of dissolving a marriage than a consensual union, while for men there is a tendency in the opposite direction (Avellar and Smock, 2005, Manting and Bouman, 2006). All in all, the similarities of economic consequences are more evident than the differences (Andreß et al., 2006).

Given this discussion, the main hypothesis would be that the dissolution of the union has more negative consequences for married persons than for cohabitants. However, the group of cohabitants is quite heterogeneous. Some cohabitants have a “marriage-like” partnership, while other cohabitants are much less committed. I expect cohabitants with children and cohabitants who have lived together for a relatively long time to be more committed to their relationship than other cohabitants. Accordingly, my hypothesis is that for these couples (children in household, long duration of partnership), the differences in well-being following dissolution will be smaller than for other couples. Bringing in children is also important for other reasons. Recent research suggests that parenthood exacerbates the negative emotional impact of marital dissolution (Simon, 2002, Williams and Dunne-Bryant, 2006, Clarke-Stewart and Brentano, 2006). I therefore expect greater support for the permanent strain model among families with children. Parents who dissolve their partnership are more exposed to the strains of having to negotiate and renegotiate relations with the ex-spouse and of establishing a satisfying relationship with the children after dissolution.

There are counterarguments, more in favor of the opposite hypothesis, that the dissolution of a cohabiting union is the most distressing. Some research indicates that cohabitants are less likely than married persons to be integrated into social support networks. In the American context, Nock (1995) finds that cohabitants have poorer relationships with their parents than married individuals. If this is the case, cohabitants might react more strongly after the dissolution because of less access to emotional and practical support from the family. Second, there are indications of selective processes governing who enters into cohabitation and who enters the state of “holy matrimony”. One example is that cohabitation tends to be selective of people who are more liberal and less religious (Smock, 2000). Another example is provided by American data suggesting that childhood sexual abuse selects women into cohabitation instead of marriage, perhaps because of the easier exit that cohabitation provides for this group of women (Cherlin et al., 2004). Since consensual unions are so widespread and “normalized” in Norway, these selective influences might be relatively weak. Still, evidence of selection is found in Norway as well, exemplified by the finding that young cohabitants are less religious than their married counterparts (Bernhardt et al., 2007). Some of the selective characteristics might increase the risk of depression and anxiety when the relationship is dissolved. Take the issue of less religiousness: in general, being religious buffers the effect of negative life events (Argyle, 2001, 170). Research has also found that church attendance is linked to better adjustment after divorce (cited in Clarke-Stewart and Brentano, 2006, 84). On the other hand, religiousness is probably associated with less favorable attitudes towards divorce, and having favorable attitudes towards marital dissolution predicts better post-divorce adjustment (Wang and Amato, 2000). However, as will be explained below, in a fixed effects approach, these selective characteristics are controlled for, given that they are stable over time.

4. Data and method

Data are taken from the nationally representative, yearly panel survey on living conditions, conducted by Statistics Norway in the period 1997-2002 (6 waves). In 1997, 3,890 persons in the age group 16-79 were interviewed and the response rate was 79.2 percent. After 6 years, 2,562 persons have been interviewed all 6 times. The response rate in 2002 was 70.2 percent. The first interview in 1997 was mainly face-to-face, by visiting respondents in their homes. The re-interviews were mainly done by telephone. The data set is limited to persons who were married or cohabitants in 1997.

Dependent variable

Each year, all respondents were presented with a list of five questions on mental distress: Three relate to depression, and two to anxiety. The questions on mental distress use a four-point scale, from “very distressed” (1) to “not distressed” (4), in the context of distress during the last two weeks before the interview. The items are “nervousness and shakiness inside”, “constantly feeling fearful or timid”, “worrying too much about things”, “feeling hopeless about the future” and “feeling blue”. These items are selected from the often used Hopkins Symptom Checklist (HSCL-25, see Derogatis et al., 1974). In general, these items have been shown to have high alpha reliabilities, above 0.8, and strong

correlations ($r=0.92$ or higher) with the full scores in HSCL-25 (Tambs and Moum, 1993, Strand et al., 2003).

The main dependent variable is simply the mean score on all five items, ranging from 1 (not distressed on any item) to 4 (very distressed on all items). The distribution is skewed, with most respondents placing themselves near the positive end of the distribution. Since data are gathered in face-to-face/telephone interviews, there is probably a substantial degree of underreporting. This has been shown in previous research, comparing results from questionnaires with results from interviews (Moum, 1998). Two dichotomous measures are also tested, one singling out those who are somewhat distressed on at least one item (31 percent of all), the second singling out persons who score above 1.8, giving a total of 10 percent (according to Strand et al., 2003, this roughly corresponds to the percentage of persons inflicted by a mental disorder, given results from the full version of HSCL).

Underreporting reduces the variation in the dependent variable, making it more difficult to obtain statistically significant results. Since the extent of underreporting also differs between social groups, conclusions regarding the effect of belonging to these groups might be affected.

There is, however, little reason to believe that differences in the degree of underreporting would seriously affect the group comparisons made in this article. To the degree that underreporting is affected by stable personality characteristics, this is controlled for using a fixed effects approach (see below).

Independent variables

Persons dissolving a marriage are defined as persons who are registered as married in year t and as single (neither married nor cohabitant) the year after ($N=94$. Most of these are separated. Persons who became widows/widowers during the period are excluded). Persons dissolving a cohabiting relationship are persons who were registered as cohabitants in year t and as single in year $t+1$ ($N=111$).

Unfortunately, repeated questions on social support networks have not been posed in these surveys. However, two variables measuring changes of economic circumstances are included; one objective and the other subjective. The objective variable is whether the household received social welfare benefits or not during the year (changes in total household income was used in earlier versions of this article, but proved to have no effect and was therefore excluded from the analysis). The subjective variable is a measure of satisfaction with the household economy, ranging from "very satisfied" (1) to "very dissatisfied" (5). Other control variables are employment (1=employed, 0=not employed) and health. Changes in health are measured as the subjective evaluation of "own health in general", ranging from "very good" (1) to "very bad" (5).

Besides these time-variant variables, some time-invariant variables are used to subdivide the fixed effects analysis and study interaction effects: Gender, having children (age group 0-15) in the household in 1997 and duration of the partnership in 1997. To capture possible period effects, year of survey is included in the form of dummy variables in each analysis.

Estimation strategy

The primary focus of this article is changes of mental distress following from partnership dissolution, and how these changes differ between cohabitation and marriage. The main statistical approach is linear regression with fixed effects, estimated with STATA's *xtreg* command. The year(s) before, at, and after partnership dissolution are entered as a series of dummy variables. The dummy for years at least two years before dissolution is the reference category. The difference between cohabitation and marriage dissolution is tested by means of interaction effects between type of union dissolution and the dissolution year dummies.

The fixed-effects regression measures how much the mental distress dependent variable changes when individuals change values on the time-varying independent variables. The clustered nature of the data (multiple individual observations) is accounted for by entering a dummy variable for each

individual. The dummy variable captures all time-constant variables, both measured and unmeasured (Allison, 1994, Petersen, 2004). In contrast, a random effects model takes account of the clustered nature of the longitudinal data by using two error terms for each individual; one individual-specific and constant over time, and one that varies both within and between individuals.

The strength of the fixed-effects procedure is that one can control for all time-constant variables; the problem of permanent selection effects discussed earlier can be effectively dealt with. The danger of omitted-variables bias is reduced. However, also in fixed-effects procedures one may have omitted-variable bias, if one does not measure all relevant time-varying variables (Allison, 1994, Petersen, 2004, 334). The problem of temporary selection is not necessarily solved. A major drawback is that estimations can only be ascertained for independent variables that vary over time. Also, individuals with no across-time variation in some of the variables do not contribute to the analysis concerning these variables.

As a check on robustness of results, binary logit models, using the two dichotomous dependent variables, are also implemented. The *xtlogit* command in STATA is used. A problem with the binary models is that many individuals have the values of 0 or 1 during the entire period, and therefore do not contribute to the estimation.

5. Results

Table 1 presents descriptive statistics for the variables used. As can be seen, there are some notable differences between the married persons and the cohabitants. The cohabitants are on average 12 years younger, have a somewhat better subjective health and have more often received social care benefits. The average duration of the partnership is, as expected, much lower for cohabitants than for married persons; 5.5 in 1997 compared to 23.3 years. Another important difference is the presence of young children. Children 0-15 years old were present in the household among 50 percent of the cohabitants and 44 percent of the married persons. The latter is perhaps somewhat surprising, but must be seen in relation to the relatively young age of the cohabitants. The large number of cohabitants living with children underscores an important point: Many cohabiting couples in Norway have a “marriage-like” partnership.

Table 2 presents the results of a fixed effect, linear regression, analysis (dummies for the year of survey are included, not shown). Table 2 clearly supports a crisis model, both for divorces/separations and dissolved cohabitations. For divorces/separations, only the coefficient at $t=0$ is statistically significant at the 5 percent level. Two or more years after the dissolution, the level of mental distress is not significantly higher than two or more years before the dissolution (the last category is the omitted reference category). A permanent strain model is not supported. Contrary to the main hypothesis, the effects for married persons and cohabitants are largely very similar, and interaction terms with type of partnership are not statistically significant (results not shown). If one should point towards a tendency, it would be that the dissolution of a consensual union is more distressing than the dissolution of a marriage. The effects at $t-1$ and $t+1$ are significant among cohabitants only. The control variables are not entered in these models, but the inclusion of the control variables does not change main conclusions. Results are nearly identical (not shown).

Table 1. Descriptive statistics. Persons married or cohabiting in 1997 (N=person years)

Variables	All partnerships			Married			Cohabitants		
	Mean	Std dev	N	Mean	Std dev	N	Mean	Std dev	N
Mental distress A, 1-4	1.19	0.42	13318	1.19	0.41	10835	1.20	0.43	2483
Mental distress B, 0-1 (1,>1)	0.31	0.46	13318	0.31	0.46	10835	0.32	0.47	2483
Mental distress C, 0-1 (<1.8, =>1.8)	0.10	0.29	13318	0.10	0.29	10835	0.09	0.29	2483
Type of union 1=cohabitation 0=marriage	0.19	0.39	14940	-	-	-	-	-	-
Dummies years before/after dissolution									
t<=-1	0.027	0.16	12486	0.020	0.141	10062	0.052	0.22	2424
t=-1	0.017	0.13	12486	0.010	0.097	10062	0.046	0.21	2424
t=0	0.017	0.13	12486	0.010	0.097	10062	0.046	0.21	2424
t=+1	0.014	0.12	12486	0.007	0.085	10062	0.041	0.20	2424
t>+1	0.026	0.16	12486	0.011	0.103	10062	0.089	0.28	2424
Age	47.72	14.3	13881	50.50	13.6	11265	35.8	10.4	2616
Employed 1=yes, 0=no	0.75	0.43	13292	0.73	0.45	10811	0.86	0.34	2481
Economic dissatisfaction values 1-5	2.08	0.86	13325	2.05	0.84	10842	2.23	0.90	2483
Evaluation of health, 1-5	2.04	0.85	13330	2.07	0.87	10847	1.87	0.76	2483
Received social care benefits 1=yes, 2=no	0.028	0.16	13892	0.024	0.152	11265	0.049	0.22	2627
Children in household 0-15 1997 1=yes, 0=no	0.45	0.50	14880	0.44	0.50	12078	0.50	0.50	2802
Sex, 1=men, 2=female	1.51	0.50	14940	1.51	0.50	12096	1.50	0.50	2844
Duration of partnership 1997, years	19.9	14.9	14772	23.3	14.4	11940	5.51	5.26	2832

Table 3 uses the first of the dichotomous versions of the dependent variable (mental distress B), and applies a fixed-effect logistic regression. As can be seen, the number of observations is considerably lower than in table 2, since many observations are either all 0 or all 1. The main results are very similar to table 2. The support for a crisis model is even clearer. Both at t-1 and at t+1 and t>+1 the

tendency is the same as in table 2: Cohabitants are more distressed. In this case the difference at $t+1$ is statistically significant at the 10 percent level. On the other hand, the increased distress at $t=0$ is somewhat stronger for divorcees/separated persons than for cohabitants, but this difference is not significant. Results using the second dichotomous version of the dependent variable (mental distress C) are very similar to table 3 (not shown). Only the effect at $t=0$ is statistically significant, again supporting the crisis model. No significant interaction effects are found.

Table 4 includes the control variables, and divides the analysis in two, by bringing in the crucial variable of children in the household. I hypothesized that there would be more support for a permanent strain model among persons with children, and this is confirmed. For persons without children the crisis effect is insignificant at the 5 percent level; the formerly married are in fact significantly better off two or more years after the dissolution than two or more years before. Among married persons and cohabitants with children there is a substantial crisis effect, the formerly married are in this case significantly *worse* off after the dissolution¹. Table 4 also brings a surprising result concerning the difference between the cohabitants and the married persons. Contrary to the main hypothesis, there is a substantially stronger crisis effect among cohabitants with children than among a similar group of married persons². The interaction effect at $t=-1$ and $t=0$ is significant at the 5 percent level. For persons without children there is also a significant interaction effect at $t>+1$. Contrasting the formerly married without children, childless cohabitants are not better off two or more years after the dissolution.

The four models in table 4 have also been estimated without the control variables, obtaining very similar results (not shown³). This further substantiates the claim that the effects of partnership dissolution are of a causal nature. It seems that neither changes in health nor economic distress can explain much of these effects. In line with other research, however, both kinds of change are potent predictors of mental distress. Changes in employment status also contribute to changes of distress.

It can be argued that the variable of subjective health is so closely related to mental distress that the direction of causality should be questioned. However, since results are very similar when the health variable is taken out, and physical health problems undoubtedly are one of the causes of mental distress, the models are presented with the measure of subjective health included.

Table 2. Mental distress and time before and after divorce/separation or dissolving a cohabitation. Linear regression, fixed effects¹.

Divorces/separations			Dissolved cohabitations		All dissolutions	
	Coefficient	Std. Err	Coefficient	Std. Err	Coefficient	Std. Err
Constant	1.21***	.007	1.20***	.017	1.22***	.007
Time of dissolution						
$t < -1$ (ref. cat.)	.	-	.	-	.	-
$t = -1$	.045	.038	.114*	.046	.075**	.028
$t = 0$	.159***	.038	.222***	.048	.188***	.029
$t = +1$	.042	.047	.107*	.054	.074*	.033
$t > +1$	.029	.047	.040	.054	.031	.033
Number of person years	9755		2264		12019	
Number of persons	1677		404		2081	
Overall R ²	0.0072		0.0416		0.0143	

¹Dummies for observation year included, not shown

Table 3. Persons mentally distressed at time before and after divorce/separation or dissolving a cohabitation. Conditional fixed-effects logistic regression¹. Odds ratios.

Divorces/separations			Dissolved cohabitations		All dissolutions	
	Coefficient	Std. Err	Coefficient	Std. Err	Coefficient	Std. Err
Time of dissolution						
t<-1 (ref. cat.)	.	-	.	-	.	-
t=-1	1.13	.414	1.49	.545	1.36	.343
t=0	3.49***	1.22	2.65*	.999	3.05***	.765
t=+1	.73	.365	1.56	.671	1.32	.405
t>+1	.76	.347	1.21	.531	1.21	.354
Number of person years	5394		1359		6753	
Number of persons	923		240		1163	
Log likelihood	-2013.17		-515.07		-2533.88	

¹Dummies for observation year included, not shown

Table 4. Mental distress and time before and after dissolution of marriages/cohabitations, among persons with and without children in the household. Linear regression, fixed effects¹.

	Have children 0-15 in household				Without children 0-15 in household			
	Divorces/sep.		Diss. cohabitations		Divorces/sep.		Diss. cohabitations	
	Coeff.	Std. Err	Coeff.	Std. Err	Coeff.	Std. Err	Coeff.	Std. Err
Constant	.977***	.042	.814***	.065	.930***	.029	1.08***	.069
Year of dissolution								
t<-1 (ref. cat.)	-	-						
t=-1	.056	.042	.286***	.070	.093	.071	-.029	.060
t=0	.179***	.043	.342***	.071	.073	.074	.120(*)	.062
t=+1	.108*	.051	.133(*)	.076	-.118	.100	.037	.073
t>+1	.139**	.051	.033	.080	-.265**	.097	.029	.072
Employment	-.067**	.024	.004	.044	-.007	.021	-.133**	.042
Economic dissatisfaction	.044***	.007	.070***	.015	.049***	.008	.069***	.015
Received social care benefits	.019	.038	.038	.058	.014	.046	.045	.061
Evaluation of health	.115***	.009	.123***	.020	.096***	.008	.066**	.019
Number of person years	4472		1124		5218		1111	
Number of persons	771		197		902		201	
Overall R ²	0.188		0.165		0.171		0.120	

¹Dummies for observation year included, not shown

What happens if we use the dichotomous versions of the dependent variable (in the coming paragraphs, discussing tables 4-6, I will only refer to mental distress B, since the number of observations become too few when mental distress C is used)? Estimating the different models of table 4, quite similar results are obtained, with some exceptions (results not shown). The analyses using mental distress B as the dependent variable also point to persons with children in the household

becoming more distressed than those without children, but in this case the differences are mostly not statistically significant. Also, the interaction effects between type of partnership dissolution and year of dissolution are not statistically significant when the control variables are included.

Having children in the household is one indication of a marriage-like partnership among cohabitants. Another is duration of the partnership. Table 5 analyses the difference between divorces/separations and dissolved cohabitations separately for partnerships that had lasted 0-5 years and more than 5 years. Comparing marriages and cohabitations that have lasted 5 years or less, the tendency is in line with my main hypothesis, i.e. a stronger effect of dissolving “young marriages” than “young cohabitations”. These differences are far from statistically significant, however. In comparison, the differences for partnerships that have lasted more than 5 years are dramatic. In the case of longer lasting cohabitations, there is both support for a strong crisis effect and a permanent strain effect. All interaction effects are statistically significant at the 5 percent level⁴.

Table 5. Mental distress and time before and after dissolution of marriages/cohabitations, according to duration of partnership. Linear regression, fixed effects¹.

	Duration 0-5 years 1997				Duration 6+ years 1997			
	Divorces/sep.		Diss. cohabitations		Divorces/sep.		Diss. cohabitations	
	Coeff.	Std. Err	Coeff.	Std. Err	Coeff.	Std. Err	Coeff.	Std. Err
Constant	.879***	.061	.937*	.059	.954***	.023	.972***	.078
Year of dissolution								
t<-1 (ref. cat.)	-	-						
t=-1	.101	.074	.042	.057	.038	.044	.241*	.075
t=0	.135(*)	.077	.066	.059	.152**	.044	.523***	.077
t=+1	.119	.103	.001	.067	.050	.052	.241**	.087
t>+1	.139	.092	-.063	.066	.018	.054	.270**	.080
Employment	.012	.043	-.050	.037	-.035*	.016	-.091(*)	.053
Economic dissatisfaction	.062*	.015	.077**	.013	.044***	.006	.048**	.018
Received social care benefits	.066	.067	-.015	.050	.001	.033	.147(*)	.080
Evaluation of health	.137***	.019	.104***	.018	.099***	.006	.083***	.021
Number of person years	1264		1417		8491		846	
Number of persons	220		256		1457		148	
Overall R ²	0.042		0.125		0.174		0.144	

¹Dummies for observation year included, not shown

Because of the limited number of partnership dissolutions, it is difficult to further subdivide the material. However, among cohabitants who had lived together for 5 years or less, and did not have children, there was no discernible, negative effect of the dissolution (results not shown). On the other hand, for cohabitants who had lived together for more than 5 years, and had children in the household, there is a highly significant crisis effect. A similar group of married persons with children has a level of distress that places them between these extremes. Unfortunately, the number of dissolutions involving married persons without children, living together for less than 6 years, is too few to allow meaningful comparisons.

Testing for interaction effects with age, the differences are much the same as for duration of partnership. There are stronger effects of dissolving cohabitations than of marriages in the age group above 40 (statistically significant at t=0), while there are much smaller differences in the age group under 40 (results not shown).

Table 6 shows results separately for men and women. As can be seen, the stronger distress reaction among cohabitants is mostly a male phenomenon. The crisis effect among former cohabitants is stronger for men, and seems to last longer (male-female differences are significant at the 5 percent level, except at $t=-1$). There is also support for a crisis effect among the formerly married for men and women alike; the difference being that the crisis sets in at an earlier stage for men. This is a surprising result, given other research showing that women more often take the initiative to dissolve the marriage. It should not be given much weight, however. In this case, the analyses using the dichotomous dependent variable give a rather different picture. Using mental distress B, men in fact react significantly more strongly to the dissolution process in the year before the actual separation (results not shown). Also, using the dichotomous variable, there are no indications of a more pronounced stress reaction among male cohabitants; the interaction effects between type of partnership dissolution and year of dissolution are far from statistically significant.

If we consider the sum of all partnership dissolutions, marriages and cohabitations, the evidence supports a crisis effect among both men and women. The main gender difference is the support for a permanent strain effect, which is found only among men. This is particularly the case when the dichotomous measure is used⁵.

Table 6. Mental distress and time before and after dissolution of marriages/cohabitations, among men and women. Linear regression, fixed effects¹.

	Men				Women			
	Divorces/sep.		Diss. cohabitations		Divorces/sep.		Diss. cohabitations	
	Coeff.	Std. Err	Coeff.	Std. Err	Coeff.	Std. Err	Coeff.	Std. Err
Constant	.956***	.029	.945***	.062	.933***	.031	1.08***	.070
Year of dissolution								
$t < -1$ (ref. cat.)	-	-						
$t = -1$	.145**	.051	.065	.059	-.001	.053	.153*	.068
$t = 0$	.087(*)	.053	.307***	.061	.178**	.053	.119(*)	.070
$t = +1$	.117*	.059	.176**	.066	.008	.070	-.018	.082
$t > +1$	.013	.062	.127(*)	.068	.066	.066	-.046	.080
Employment	-.043(*)	.022	-.091*	.040	-.018	.021	-.056	.044
Economic dissatisfaction	.045***	.007	.060***	.014	.048***	.008	.079***	.016
Received social care benefits	.060	.038	.002	.056	-.018	.044	.046	.062
Evaluation of health	.090***	.008	.082***	.018	.119***	.009	.103***	.021
Number of person years	4692		1098		5014		1165	
Number of persons	814		197		862		207	
Overall R^2	0.167		0.125		0.184		0.134	

¹Dummies for observation year included, not shown

Some of the main results from the tables are illustrated in figures 1, 2 and 3 using the predicted values from the regression analysis. As can be seen from figure 1, the former cohabitants and married persons start and end up at roughly the same level of distress, but the crisis effect is somewhat stronger and more prolonged among cohabitants. The crisis effect is much stronger for cohabitants with children (figure 2). In the case of families with children, there are also indications of a more permanent strain effect, statistically significant among the formerly married.

Finally, figure 3 shows the differences according to duration of partnership. Former cohabitants who dissolved a partnership that had lasted more than 5 years both have a strong crisis reaction and a more permanent strain reaction. The difference in relation to marriages that had lasted for more than 5 years is striking. For partnerships with a duration of less than 6 years, the difference is rather the other way around.

Figure 1. Mean level of symptoms of psychological distress (scale from 1 to 4), by year of cohabitation/marriage dissolution. Predicted values from fixed effects regression analysis (table 2).

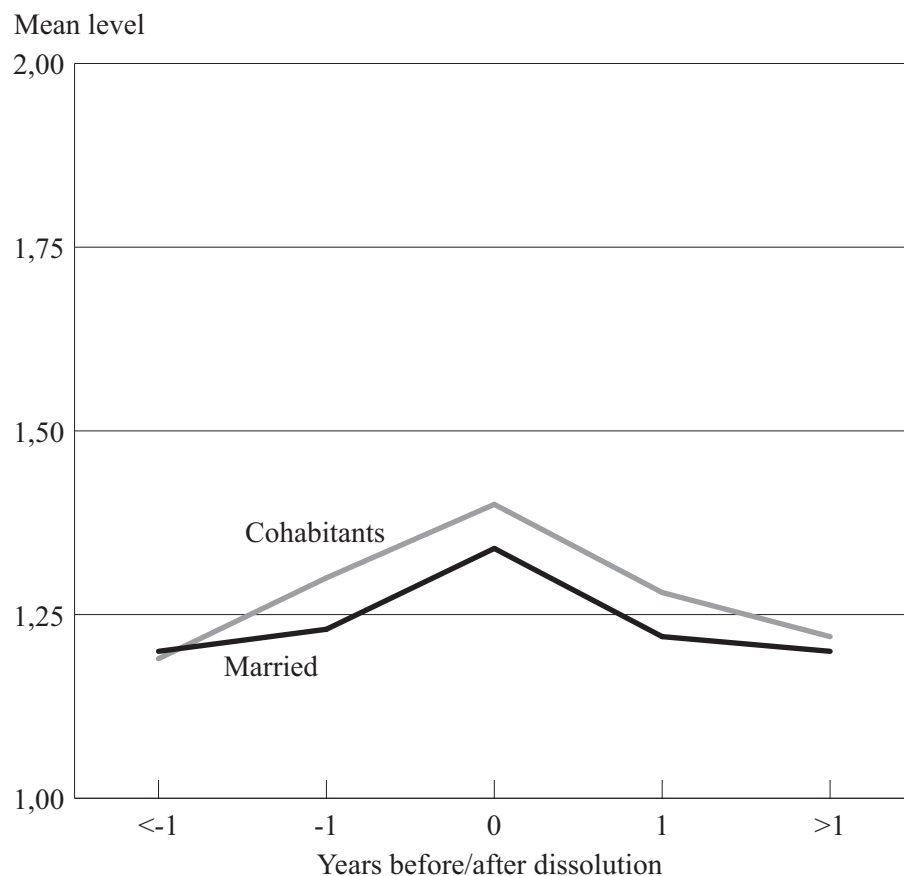


Figure 2. Mean level of symptoms of psychological distress (scale from 1 to 4), by year of cohabitation/marriage dissolution. Predicted values from fixed effects regression analysis (table 4). Had children 0-15 in household 1997.

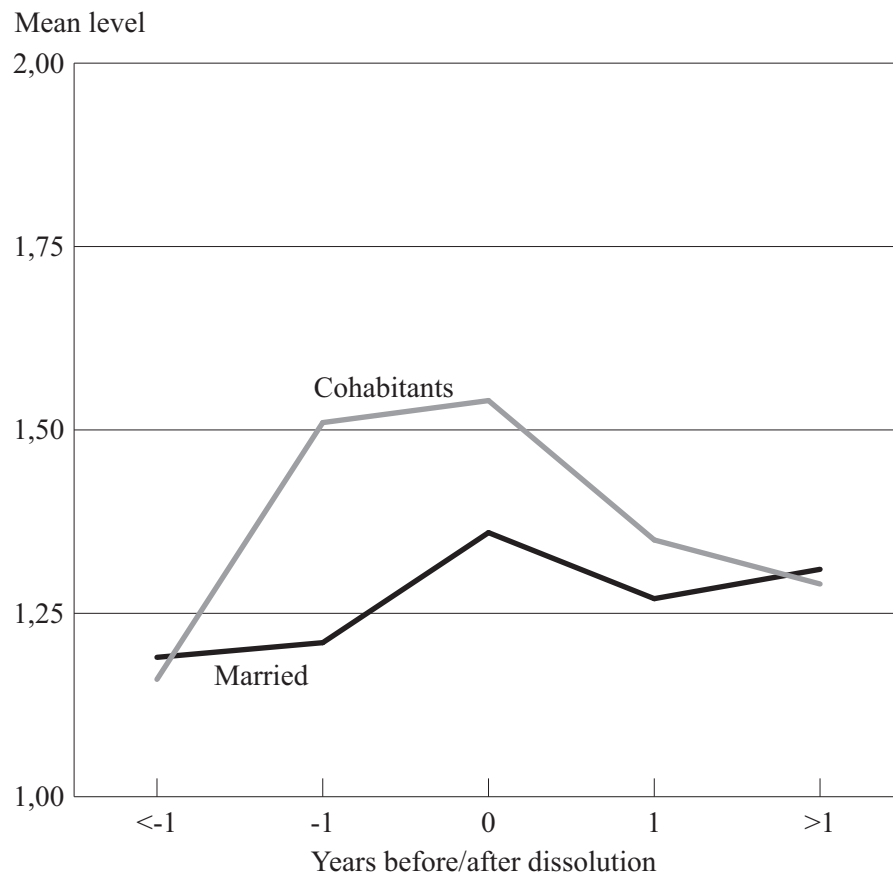
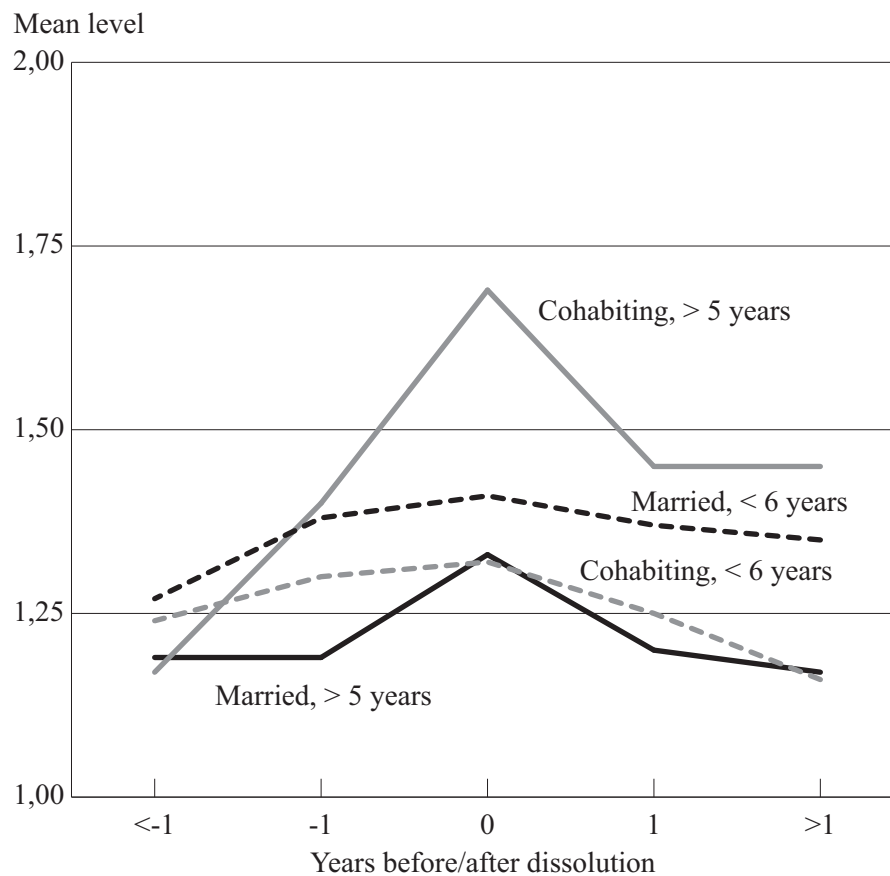


Figure 3. Mean level of symptoms of psychological distress (scale from 1 to 4), by year of cohabitation/marriage dissolution. Predicted values from fixed effects regression analysis (table 5). Duration of partnership.



6. Discussion

The Norwegian panel data used in this article mainly supports the crisis model as the best way of describing the emotional consequences of dissolving marriages and cohabitations. The heightened distress of the partnership dissolution is short-term; after a few years the distress level returns to the level two or more years before the dissolution. For divorcees without children, the results indicate that they are even better off after than before the divorce. These results are in accordance with several recent panel studies studying the effect of marriage dissolutions in Europe (Gardner and Oswald, 2006, Andreß and Bröckel, 2007). An analysis using Norwegian data on sick leave and receipt of health-related benefits, in the time period 1992-1999, also mostly supports a crisis model (Blekesaune and Barrett, 2005). There is, however, also some support for a permanent strain model in certain groups: Men, persons with children in the household, and long-term cohabitants.

With regard to differences between types of partnerships, the main hypothesis was that the dissolution of a partnership would have more negative consequences for married persons than for cohabitants. This hypothesis has clearly not been supported. The main conclusion is that there are no significant differences in the consequences of dissolving a marriage and a consensual union, in line with the few other studies that have investigated this matter (Gähler, 1998, Wu and Hart, 2002).

However, one of the main contributions of this article has been to show the considerable variations within the group of cohabitants. Cohabitations where there are no children involved, and that have only lasted a few years, seem to be dissolved without any discernible negative consequences, either short-term or long-term, for mental health. This finding is in line with the hypothesis. These may be

the kinds of "easy come, easy go" cohabitations where commitment and relational quality are relatively low. Nearly half of all dissolved cohabitations belong to this category. Unfortunately, few of the dissolved marriages are in the same category (no children, duration of partnership 5 years or less).

On the other hand, and contrary to the hypothesis, dissolving a "marriage-like" consensual union has even more serious consequences than dissolving a marriage. There is a stronger, more long-lasting, crisis effect among persons in cohabiting partnerships with small children and in partnerships that have lasted for more than five years. Could it be that marriage has some advantages over "marriage-like" cohabitations when it comes to a crisis? I have mentioned the viewpoint that cohabitation is an "incomplete institution". In contrast to marriage, non-marital partnerships are not governed by institutional norms, i.e. by strong consensual norms or by formal laws. In Durkheimian terms, cohabitation is more exposed to the ills of *anomie*. Cohabitation is, to cite Nock (1995: 56), "...suffused with ambiguity...". This ambiguity could be a drawback in a time of crisis.

There are many examples of this ambiguity. While the economic relationships between spouses are strictly law-regulated, "...the main principle for cohabitants is one of non-intervention" (Noack, 2001, 110). Only a small minority of cohabitants have made any kind of private contractual arrangements. In the time period under study, the married persons with children were obligated to have family counseling before they could legally separate, while cohabitants with children had no legal duty to attend family counseling (since 2007, this duty applies to cohabitants and married persons alike). The lack of regulation creates a greater potential for conflicts. There is little empirical evidence for this. However, the *Cohabitation Commission*, appointed by the Norwegian government to consider the needs for a further equalization between marriage and cohabitation, cites "family counseling experience", showing that "...there is a much bigger space for conflicts when long-term cohabitant partnerships with children are dissolved than in similar situations among married persons..." (NOU, 1999: 25: 69. Own translation from Norwegian). The Commission explained this with reference to the ambiguity, "the unclearly defined situation", of the cohabitant partnership, which gave rise to a larger number of issues that needed to be negotiated and renegotiated.

It is easier to terminate a cohabiting partnership than a marriage, both for legal and normative reasons. Most people who divorce in Norway can only do so after a one-year separation period. An easier exit is precisely one of the reasons why many choose to cohabit instead of marry. However, for some persons this could also lead to greater distress when problems arise. A problem in the relationship becomes more immediately threatening when there are few, if any, formal barriers to dissolution, and the informal norms governing the relationship are weak.

In the highly uncontrollable series of events that surrounds the dissolution, the rules and regulations of divorce might give a stronger sense of control. Variations in sense of control over one's life have been emphasized as the best explanation for social patterns of distress. Feelings of powerlessness, a low sense of control, make hardship more depressing (Mirowsky and Ross, 2003). The formal rules inherent in the process of divorce might ensure more predictability, and therefore be better for mental health. Support for this contention is also found in the work of Warr (1987, 1999). Warr has proposed a model of the environmental characteristics that are most conducive to good mental health. One is "Environmental clarity", which has three parts: Information about consequences of behavior, information about the future and information about required behavior. A lack of environmental clarity can lead to increased distress. Although mostly used in studies of well-being at work, the model has a wider applicability. The concept of "environmental clarity" has similarities with Durkheim's concept of *anomie*. While rarely operationalized in empirical research, there are exceptions showing the potential usefulness of this concept for understanding the social antecedents of mental distress (Thorlindsson and Bjarnason, 1998).

Why would men react more strongly than women after their partnership has been dissolved? We know from a number of studies that women considerably more often than men take the initiative to divorce (Kalmijn and Poortman, 2006, Clarke-Stewart and Brentano, 2006, 53). The immediate shock should

therefore be larger for men, which is confirmed in many, although not all, studies (Lucas, 2005, Blekesaune and Barrett, 2005, Clarke-Stewart and Brentano, 2006, Gardner and Oswald, 2006, Andreß and Bröckel, 2007). In the present study, this pattern is only confirmed for cohabitants. On the other hand, a number of research studies show that in the years following divorce women are generally more distressed than men (reviewed in Clarke-Stewart and Brentano, 2006, 91-92). I find no support for this. On the contrary: When both forms of dissolution are considered, I find some evidence of a permanent strain effect among men, not women.

Why the formerly married without children should be better off after dissolution than former cohabitants (in comparison with the situation two or more years before) is difficult to understand. If the barriers to dissolving the partnership are stronger in a marriage, there might be a longer history of conflicts. This could make the contrast between "before" and "after" more salient among the married. There is of course also the possibility that the formerly married enter a new relationship at an earlier stage than the former cohabitants.

One of the limitations of the present study is the low number of partnership dissolutions, which of course reflects the sample size and the relatively short time-period of six years. This limits the possibility of performing separate analysis for different groups. It also limits the chance of obtaining statistically significant results. Another limitation is the nature of the dependent variable. Collecting information on mental distress by the use of face-to-face/telephone interviews is not ideal. The lack of anonymity leads to under-reporting and less variation. As shown, while the analysis of the dichotomous dependent variables largely supports the conclusions drawn when using the continuous variable, there are exceptions. Most importantly, the interactions between type of dissolution (married or cohabitant) and time of dissolution are generally not statistically significant using the dichotomous measures. This should be seen in relation to the lower number of observations available in the conditional logistic regression analysis. Still, it warrants extra caution when interpreting the results.

Implied by the way partnership dissolution is defined and measured in this article, neither the formerly married nor the former cohabitants live together with a new partner at the time of dissolution ($t=0$). They may, however, be involved in a steady dating relationship or other kinds of romantic relationships). This probably serves to overestimate the negative effects of partnership dissolutions, particularly in the year of dissolution. A Norwegian study found that separated and divorced persons who were cohabiting in the first post-dissolution year were even happier than those in a stable marriage (Mastekaasa, 1994).

A crucial variable missing is the quality of the partnership. The merit of a crisis model might depend on the issue of quality. One example is Johnson and Wu (2002), who find support for a crisis explanation only among persons with relatively happy marriages. Individuals in "high-distress" marriages generally become happier after divorce, in contrast to the decline in happiness for the "low-distress" group (Amato and Hohmann-Marriott, 2007). Other research, however, while emphasizing the varied effects of divorce (many become less depressed after divorce), find that effects are predominantly negative, also when marital quality is low (Kalmijn and Monden, 2006).

7. Conclusion

The results in this article add to a number of studies showing that partnership dissolutions have emotional costs, but mainly in the short-term. In general, costs are equally high for cohabitants and for married persons, but higher for parents and for men. However, there are considerable variations within the group of cohabitants. Cohabitants that seemingly do not have a marriage-like relationship (short duration, no children) do not experience any rise in symptoms of mental distress following dissolution. On the other hand, persons in more marriage-like cohabitations (long duration or live with children) react much more negatively to the dissolution, even stronger than a similar group of married persons. The increase of depression and anxiety following dissolution cannot be explained by permanent selection. Neither does controlling for changes in circumstances concerning health, economy or employment reduce the effect of dissolutions to any significant extent.

That persons in marriage-like cohabitations should have higher emotional costs, and seemingly react with more pain when confronted with the dissolution of a partnership, is at first glance surprising. As far as I know, this has not been reported before in research literature. The robustness of the finding should be further tested using the larger sample sizes of other panel studies. It is, however, in accordance with more anecdotal evidence from family counseling. The dissolution of marriage-like cohabitations tends to be particularly conflict-ridden because there are so many issues that have to be decided on and negotiated. It might be the ambiguity of the “incomplete institution” that meets us here.

Notes

¹ All interaction effects between the year of dissolution dummies and having children in the household are statistically significant at the 5 percent level, except at $t=+1$.

² The children of cohabitants are generally younger than the children of married persons. 25 percent of the married persons had children below the age of 7, compared to 41 percent of cohabitants. However, the difference between the married persons and the cohabitants remains largely the same when the dissolution of partnerships with children 0-6 is compared.

³ The main difference is that the two coefficients in table 4 that are statistically significant at the 10 percent level become significant at the 5 percent level when the control variables are excluded.

⁴ The differences between marriages and cohabitations are largely the same when mental distress B is used as the dependent variable in logistic regression analyses, indicating that the dissolution of cohabitations is the most distressing. However, in this case the interaction effects are not statistically significant.

⁵ At $t>+1$, including all dissolutions, the interaction effect with gender is statistically significant at the 10 percent level using the continuous variable, and at the 5 percent level using the dichotomous measure (mental distress B).

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